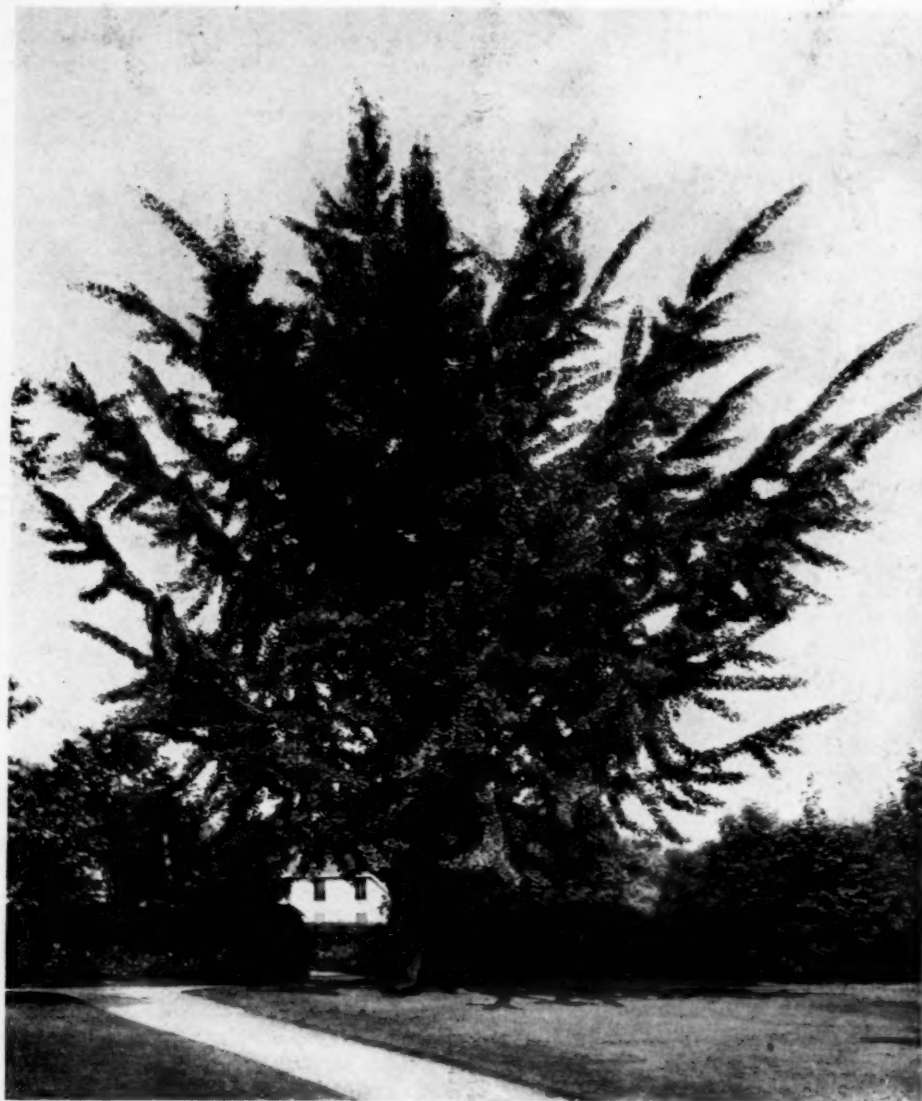


AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

JULY 15, 1938



Ginkgo Biloba

**Seek Uniform State Inspection Law
Identifying the Lindens
Some Saxifrages for American Gardens
A. A. N. Convention Program**

AMERICAN NURSERYMAN

Chief Exponent of the Nursery Trade

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MAY REMOVE EXEMPTION.

The administration will place high on its list of "must" legislation in the Seventy-sixth Congress revisions in the social security act which will bring millions of agricultural workers under its protection, stated a press dispatch from the national capital in a recent issue of the New York Journal of Commerce. If such revisions are made, the exemption from the social security tax which nurserymen's employees now have, at least in part, will be altogether removed.

President Roosevelt has recommended certain changes to Arthur J. Altmeyer, of the social security board, and asked his group to prepare revisions for submission to Congress before it convenes in January. Mr. Altmeyer is now in Europe examining the methods used there in dealing with the most vexing problem facing his group—how to keep track of the movements of the transient worker.

Mrs. Mary W. Dewson, member of the social security board, in a recent issue of Social Service Review outlined proposed immediate changes in the act, first being the extension of the benefits of the act to 16,000,000 workers now exempt. Mrs. Dewson said the ultimate goal of the security program is to "cover everyone who works for wages." She noted that one argument against inclusion of agricultural workers is that the farmers are not getting their due share of the national income and that contributions to old age insurance would, therefore, be a disproportionate burden upon both farm employers and farm laborers. "If this is true—and it may well

The Mirror of the Trade

be—then there is all the more reason for facing the issue now, when agriculture is moving toward what may prove to be a pretty thorough reorganization," she wrote.

DRUG MAKES PLANT GIANTS.

Recent newspaper reports on the work of Dr. A. F. Blakeslee, of Cold Springs Harbor, with the drug colchicine in producing giant forms of plant growth has focused attention on studies with this drug in progress at the New York state experiment station, where its effects are being investigated in connection with the station's fruit-breeding project.

In the course of these investigations, Dr. M. L. Ruttle and Dr. B. R. Nebel have this past year produced several giant marigolds, a giant snapdragon and a giant petunia. They have also obtained changes of a less favorable nature in tomatoes and poppies, indicating that the use of colchicine may have detrimental as well as advantageous effects from the standpoint of the plant breeder.

The drug is said to be highly toxic and must be used with great care. When properly applied, however, it may cause cells to lose the power of forming walls between dividing nuclei; thus a single cell may contain two or more nuclei and from these cells may come what are known as polyploid tissue, shoots and even plants. A polyploid contains a higher multiple number of chromosome sets than normal.

Polyploids are common among cultivated plants, such as wheat, potatoes, tomatoes, apples and grapes. In ornamentals where size is a feature, polyploidy is highly desirable, but it remains to be shown whether increased polyploidy will yield any better potatoes, tomatoes, apples or grapes. There are at least three distinct advantages from polyploidy which apply to all cultivated plants, however, and which are worth experimental consideration. These are, first, that infertile hybrids of wide crosses may be made fertile; second, intersterility between related lines and probably self-sterility may be overcome, and third, races with new adaptations to the environment may be secured.

GINKGO BILOBA.

As many of the commonly used shade and street trees are attacked by an increasing number of insects and diseases, nurserymen would do well to encourage more widespread planting of the maidenhair tree, *Ginkgo biloba*, since it is virtually immune to all pests and tolerates street conditions well. It is believed that the tree has outlived nearly all of its natural enemies, being the sole surviving member of a group of plants that existed in ages past.

The maidenhair tree is also unique in other ways. Botanically it is grouped below both the flowering trees and the conifers, female specimens bearing naked ovules that are fertilized by motile sperm cells in the same manner that fertilization takes place in ferns. The male flowers are borne in catkin-like clusters. The silvery plum-like fruits are so foul-smelling that it is well to avoid them by planting only male trees. However, the kernel is edible and desired by the Chinese, the plant being native to China.

In order to be certain of having only male specimens, propagation must be by cuttings, budding or grafting. Cuttings of either green or ripe wood usually root readily when handled under glass. The plant can be easily grown from seeds stratified in autumn, though if they are washed clean in autumn and sown in spring they ordinarily germinate quickly, too.

This tree gets its common name from the wedge or fan-shaped leaves, which resemble a segment from a maidenhair fern frond. Although the ginkgo is a stiff-branching, awkward-looking specimen when young, it develops into a beautiful round heavily foliated tree at maturity. The plant is not particular as to soil and transplants readily, so that nurserymen should encounter no particular difficulties in handling this tree.

The ginkgo will supply interesting variety to street plantings, badly needed in some communities, and eventually makes a splendid shade tree for lawns. It is tall-growing, having a maximum height of about 120 feet, and is hardy in all but the severest sections of this country.

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JULY 15, 1938

No. 2

Seek Uniform State Inspection Law

Conference of A. A. N. Committee on Trade Barriers with Executive Committee of National Plant Board Marks Definite Advance Toward Nurserymen's Goal

Notable progress toward uniform state nursery inspection laws has come in the past six months through the work of the committee on trade barriers appointed by President E. L. Baker when he took office as head of the American Association of Nurserymen. Correspondence with the entomologists of various states and conferences with some of their representatives on the sectional plant boards led to a meeting of the full committee on trade barriers with the executive committee of the National Plant Board, of which M. S. Yeomans, Atlanta, Ga., is chairman. The conference was held May 31 at the Andrew Jackson hotel, Knoxville, Tenn., and continued the next day, June 1, at the Mountain View hotel, Gatlinburg, Tenn., in the heart of the Smoky mountains national park. Present were all the members of the executive committee of the National Plant Board and several other state entomologists. The members of the committee on trade barriers present were Lee McClain, chairman, Knoxville, Tenn.; Paul C. Stark, Louisiana, Mo.; Harold Welch, Shenandoah, Ia.; Ray D. Hartman, San Jose, Cal., and Henry B. Chase, Chase, Ala. Lester C. Lovett, Little Silver, N. J., was taken ill at the last moment and could not attend. Also present were President E. L. Baker and Albert F. Meehan, Dresher, Pa., chairman of the A. A. N. quarantine committee.

The discussion at the meeting and the resolutions finally adopted, which have now been made available by Dr. Yeomans and Mr. McClain, mark a long step toward the elimination of nurserymen's difficulties in interstate

shipment because of varying restrictions under state laws. The recommendations will be referred to the A. A. N. at the Detroit convention for indorsement and also to the National Plant Board for consideration by the state entomologists.

The subjects before the conference at Gatlinburg were as follows:

- (1) Nursery inspection service shall only cover control of injurious insect pests and plant diseases, and shall not be used as a method of determining how nursery stock shall be merchandised or as a trade barrier.
- (2) Eliminate out-of-state permit tags.
- (3) Each state accept other states' inspection as final qualifications.
- (4) Eliminate fees to out-of-state nurserymen and agents.
- (5) Eliminate duplicate invoices.
- (6) Resolution of nurserymen's coöperation.

Chairman Yeomans expressed belief, concurred in by the group, that the intent of the contents of the first premise was well covered by the principles of plant quarantine drafted

by the National Plant Board and approved by each of the four sectional plant boards. Since many nurserymen were believed to be unfamiliar with the contents of these principles, it was suggested that a copy be sent to Richard P. White, executive secretary of the American Association of Nurserymen, Washington, D. C., so that he might have it mimeographed and furnish copies to each member.

Numbers 3 and 4 were considered together, and in the discussion of No. 2 it was brought out that the requirement for two tags was believed to have certain advantages in the tracing and checking up of shipments of nursery stock in case of the discovery of new pests in the nursery after certain stock had been shipped out. It also had advantages in calling attention to shippers of violation of certain quarantines, etc. On the other hand, its weaknesses were pointed out in that it required only the kind and number of trees and shrubs, whether ornamental, apple, peach, etc., but did not require the variety, which is of importance in tracing such diseases as peach mosaic and others, since certain varieties are more susceptible to the disease in question than others. Furthermore, the requirement was for interstate shipment and did not serve as a check on the movement of nursery stock within the state. It seemed to be the general consensus that this same information could be just as well secured directly from the nurserymen, since most nurserymen keep duplicate invoices and all would if this practice were required



Lee McClain.

by regulation. The filing of invoices in the inspection office seemed impractical to some members because of the lack of uniformity in the size and form of these and because of the need for elaborate files over long periods of years to make them useful. Most state inspectors already have more filing to do than their office forces will permit. Because of the fact that no accurate check was being made by states using duplicate tags to see how many shipments were actually being made by persons or firms not securing the necessary prescribed permits and the fact that there was so much movement by truck unaccounted for and unknown distribution to customers through dealers and stores, it seemed that the duplicate invoice was burdensome and of only limited value.

Nurserymen pointed out that practically every one of them is compelled to keep records for many years to protect themselves against claims for error in furnishing incorrect varieties, for income tax reports, etc., and said they could furnish upon demand an invoice of any shipment made by them back a dozen or more years, which would seem to eliminate need for duplicating the files in state offices.

The recommendation finally adopted for submission to the National Plant Board and sectional groups was as follows: "That each state accept the inspections of other states and their certificate tag as final qualification for the entry of nursery stock from the state of origin. This means the elimination of out-of-state permit tags and elimination of filing duplicate invoices." It was further recommended, upon discussion of No. 4, to eliminate all fees between the states for the shipment of nursery stock or registration of their agents.

After some discussion of No. 5, it was recommended that this suggestion be passed on to the National Plant Board and the respective sectional boards without comment.

The following resolutions were adopted:

1. Resolved, that we, the members of the American Association of Nurserymen, in the interests of eliminating the unscrupulous dealers in nursery stock, pledge ourselves not to sell nursery stock to any person for resale except he be a qualified and licensed nurseryman or dealer.

2. Whereas, it is a well established fact that a large proportion of the agricultural and horticultural crop losses now experienced from the ravages of insect

pests and plant diseases is brought about by pests which have been accidentally introduced from foreign countries, and

Whereas, this association recognizes the value of plant quarantines and the certification of nursery stock as being the first line of defense against further spread and continued introduction of new pests, and

Whereas, under certain rules, regulations and quarantines now maintained by the United States Department of Agriculture, under the plant quarantine act of 1912, the responsibility for the inspection of certain classes of foreign plant importations is placed on the state, therefore

Be It Resolved, by this association that the Secretary of Agriculture be urged not to relax, but more strictly to regulate and restrict the importation of foreign plants, which may be responsible for further introduction of dangerous pests, and be it further

Resolved, that the Congress of the United States be urged more adequately to support a service which is so vital in the protection of American agriculture and horticulture from dangerous insect pests and injurious plant diseases.

3. Whereas, it has been revealed through recent surveys that the funds and

personnel available to carry on regulatory work in some of our states are inadequate to provide the type of clean bill-of-health for nursery stock that our association would like to have,

Be It Resolved, that our association recommend to its members that they consider it their responsibility to inquire into and determine whether their own state is adequately supported with the necessary state appropriations to carry on satisfactorily efficient quarantine inspection work.

4. Believing that our state entomologist and other regulatory officials are exerting every effort to carry on to the best of their ability the insect and plant disease control work, keeping the best interests of our nurserymen in mind, we, the members of the American Association of Nurserymen, wish to go on record as appreciating their efforts and extending our whole-hearted co-operation and moral support to their work and especially to commend the progress now being made through the National Plant Board and its several regional boards through which a better understanding and greater uniformity in purpose, as well as in regulations and inspection, are being brought about.

Last Call for Convention

Latest Announcements on Program for Annual Meeting of American Association of Nurserymen at Detroit

In his letter sent out last week to the members of the American Association of Nurserymen as a last call to attend the convention at Detroit next week, Harry Malter, chairman of the arrangements committee, states: "Your committee has done their utmost in providing an extraordinary program in both business sessions and lavish entertainment to make this the outstanding convention of the association." Scrutiny of the program bears this out. The high lights to which he calls particular attention are the "Aquatic Garden" as the social rendezvous, the delightful boat trip on the Detroit river and Lake Huron, the full day at Henry Ford's world's famous Greenfield Village and the business sessions teeming with helpful and instructive ideas, as well as first-hand information on legislation that affects nurserymen's business.

Especially well suited is the selection of Harry J. Klingler, president and general manager of Pontiac Motors division of the General Motors Corp., as one of the principal speakers at the convention. Whether it is the flowers around his beautiful Bloomfield Hills home, the crops on his recently acquired farm near his birthplace on the St. Clair river, or sales of the Pontiac company which he heads, he likes to see things grow.

Mr. Klingler is the kind of business executive who takes his job seriously, but never himself. He prefers to deal with men, not things. When men are right things are right. His greatest success has been with men. That was the reason for his record with the company of which he was general sales manager from 1929 to 1933, when he became the president of Pontiac Motors. And that was why all through 1937, when the automotive industry was crippled and slowed down by strikes, Pontiac suffered least



H. J. Klingler.

of all. He knew his men. The only time any of its departments were closed was when outside suppliers were unable to meet their commitments.

Tall, rangy, athletically built, with the physique of a college boy, showing no effects of the strain of the past several years, this business leader's diversions and hobbies are fishing, hunting, sailing, home and more recently the farm—this latter unquestionably heading the list now—but all of them pursued in the same unhurried and untiring manner characteristic of him in business.

It was only July 5, 1889, that he became a vital statistic in the town of St. Clair, Mich. After high school he entered the University of Michigan,

left college to take a job with the old Chalmers Motor Car Co., changed to a chair company of which he became sales manager and volunteered when the United States entered the World war. Right after the war he became associated with a division of General Motors and since then has climbed steadily up the ladder of success.

For the ladies is the additional announcement that Mrs. Ruth Mosher Place, the garden editor of the Detroit News, will be guest speaker at the luncheon of the Women's Auxiliary to be held July 19. Her topic will be "The Adventures of a Garden Editor."

For the early arrivals at Detroit the registration desk will be open Satur-

day, July 16, and again Sunday afternoon for the convenience of those who wish to avoid the rush of registering Monday morning. The boat trip that day will be important not only as an entertainment feature, but also for the meetings of several affiliated associations.

The first meeting of the new board of governors will take place at 5 p. m. July 19. The payment of dues is important to entitle chapters to the fullest representation in the number of delegates. The executive committee has approved five more chapters—northern Alabama and Mississippi, Kansas, Oklahoma and Arkansas, Texas, North and South Dakota—bringing the number of chapters approved to twenty-six.

COMPLETE A. A. N. CONVENTION PROGRAM

SATURDAY, JULY 16.

1:00 P.M. Registration, mezzanine floor, Book-Cadillac hotel.

SUNDAY, JULY 17.

1:00 P.M. Registration, mezzanine floor, Book-Cadillac hotel.

9:00 P.M. Preview of "Aquatic Gardens": Entertainment.

MONDAY, JULY 18.

9:00 A.M. Registration, mezzanine floor, Book-Cadillac Hotel.

Certification of delegates.

2:00 P.M. Boat trip up Detroit river to Lake Huron.

9:00 P.M. Official opening of "Aquatic Gardens": Entertainment, dancing.

TUESDAY MORNING, JULY 19.

9:30 A.M. Convention called to order. Door prize numbers distributed.

Invocation, by Rev. Mr. Behner, Monroe, Mich.

Address of welcome, by Hon. Richard W. Reading, mayor of Detroit.

Response, by Chet G. Marshall, vice-president.

Announcements by arrangements committee, Harry E. Malter, chairman.

10:00 A.M. President's address, by Edward L. Baker.

10:40 A.M. Report of secretary-treasurer and traffic manager, by Charles Sizemore.

10:50 A.M. Report of treasurer, by Owen G. Wood.

11:00 A.M. Address, by W. J. Cameron, director of public relations, Ford Motor Co.

12:00 Noon Appointment of temporary committees.

12:30 P.M. Adjourn for luncheon.

TUESDAY AFTERNOON, JULY 19.

1:00 P.M. Women's Auxiliary luncheon, at Book-Cadillac hotel.

2:00 P.M. Convention session. Door prize numbers distributed.

"The Federal Housing Administration and the Nurserymen," by Evert Kincaid, zone land planning consultant, Federal Housing Administration.

2:30 P.M. "Nebraska's Co-operative Farm Forestry Program," by W. H. Brokaw, director of extension, University of Nebraska, Lincoln, Neb.

3:00 P.M. "Increasing Sales with Color Photography," by George Siebenthaler.

3:30 P.M. Report of Washington contact committee, by Clarence O. Siebenthaler, chairman.

3:50 P.M. Report of Washington representation fund, by Benjamin J. Greening, chairman.

4:10 P.M. Report of legislative committee, by C. G. Marshall, chairman.

4:30 P.M. Report of executive secretary, by Richard P. White.

5:00 P.M. Meeting of board of governors. Roll call. Business: 1938-1939 budget. Nominations for officers.

7:00 P.M. Baby Ramblers' business meeting, members only.

8:00 P.M. Theater party, Women's Auxiliary.

9:00 to 12:00 Midnight—Entertainment, in "Aquatic Gardens."

WEDNESDAY MORNING, JULY 20.

9:30 A.M. Trip to Greenfield Village.

1:00 P.M. Luncheon at Dearborn Inn.

WEDNESDAY AFTERNOON, JULY 20.

2:30 P.M. Business meeting, at Dearborn Inn.

Report of arbitration committee, by Charles Sizemore.

2:40 P.M. Report of botanical gardens and arboretums committee, by Robert Pyle, chairman.

3:00 P.M. Report of market development and publicity committee, by Paul Stark, chairman.

3:15 P.M. Reports of other standing committees:

Trade practice and ethics, by Louis E. Hillenmeyer, chairman.

Trade relations, by D. B. Cole, chairman.

Vigilance, by Charles Sizemore, chairman.

Co-operative committee with U. S. D. A., by Henry B. Chase, chairman.

3:30 P.M. Report of annual meeting of United States Chamber of Commerce, by Robert Pyle, national councilor.

4:00 P.M. Leave for Detroit.

7:00 P.M. Annual banquet: Entertainment, dancing.

THURSDAY MORNING, JULY 21.

9:30 A.M. Convention session. Door prize numbers distributed.

"Government Bids—Specifications, Rules and Regulations," by G. R. Roberts, chief office engineer, procurement division, Washington, D. C.

10:00 A.M. "The Landscape Development of Highways," by Wilbur H. Simonson, senior landscape architect, bureau of roads, Washington, D. C.

10:30 A.M. Address, by H. J. Klingler, president, Pontiac Motor Co.

11:00 A.M. Address, by Hon. Earl C. Michener, M. C.

12:00 Noon Adjourn for luncheon.

THURSDAY AFTERNOON, JULY 21.

2:00 P.M. Convention session. Door prize numbers distributed.

Report of quarantine committee, by A. F. Meehan, chairman.

2:20 P.M. Report of special committee on trade barriers, by Lee McClain, chairman.

2:40 P.M. Report of standardization committee, by William Flemer, Jr., chairman.

3:00 P.M. Report of auditing committee.

3:15 P.M. Report of necrology committee, by F. R. Kilner, chairman.

3:30 P.M. Unfinished business.

4:00 P.M. New business: Resolutions—Executive committee.

4:30 P.M. Election of officers.

4:45 P.M. Selection of 1939 convention city.

5:00 P.M. Final adjournment.

New Jersey Survey

*Complete Figures Compiled on Acreage,
Investment and Sales of Nurseries in State*

A survey of the nursery industry in New Jersey for 1936 is reported in bulletin 295, written by Frank A. Soraci, state nursery inspector, and just issued by the New Jersey department of agriculture.

Since this survey is the most thorough presentation of statistics yet made regarding nurserymen in any state, it offers some interesting data. Some of them were presented by Mr. Soraci at his state association meeting reported in the American Nurseryman for February 1.

According to the federal census of 1930, New Jersey ranked tenth in the nation in nurseries reporting more than \$250 in annual volume of business; fourth in receipts from sales of products from the nurseries, with \$4,408,537; third in expenditures for salaries, wages, commissions, fertilizers, repairs, etc., with \$3,641,511; sixth in building and equipment, with \$5,221,187; second in proportion of total land area devoted to growing nursery stock, with one acre of stock for every 797 acres of land area, and sixth in number of employees, 2,242.

The data for the report of Mr. Soraci were collected by sending questionnaires to all the holders of certificates of inspection of the New Jersey department of agriculture. For all those who failed to return questionnaires the inspectors of the department filled in schedules, and in this way a questionnaire was obtained for every one of the 641 certificates issued.

For the purpose of this report a nursery was defined as "a place devoted to growing of lining-out stock, including budding and grafting stocks, ornamental plants, deciduous fruit trees and vines and small fruit plants." Field-grown roses were included as ornamental plants, and annuals and herbaceous perennials were also included when the grower did not grow such material to the exclusion of nursery stock. Because of this classification 201 nurseries could not be tabulated, and four growers refused to give complete information, so that the total number of returns used for the survey was 436.

When the 436 remaining reports were tabulated, it was found that 203 nurseries reported business of less than

\$500 during the year 1936. Because of this low income, it was decided to tabulate these results separately, so that the 233 remaining nurseries would give figures more representative of the industry.

For a more easily visualized report the remaining nurseries were divided into three groups: Group 1, nurseries growing stock mainly for use in the metropolitan area of New York and northern New Jersey; group 2, those dependent to a great extent for their business on the Philadelphia and Atlantic City areas; group 3, those in five remaining counties in New Jersey.

Of the 233 nurseries reporting business of more than \$500 for the year 1936, 148 are in the first group.

The report shows that there was a total of 2,606 acres of evergreens planted, 115 acres of fruit trees, 480 acres of shade trees, 873 acres of flowering trees and shrubs, eighty-four acres of roses, fifteen acres of annuals and 191 acres of perennials. In all but the fruit trees the report showed varying degrees of decrease from state statistics compiled for 1932. The total acreage of all stock for the three groups was 4,405 acres.

Total invested value of the three groups was \$9,337,936, and total sales of the three groups were \$3,484,808, or approximately thirty-eight per cent of the invested value. It is interesting to note that \$1,898,088 of the total sales were wholesale sales, or that on over half of the sales a further profit was realized by some middleman. These figures show an increase in business over 1932 of \$196,652.

The total value of investment of the nurseries is \$2,280,525 under the figure for 1932. However, this can be attributed to the fact that the figures are based on estimates, and it is possible that the nurseryman's conception of the value of his holdings has been somewhat reduced in the past few years. Much of the investment in both equipment and nursery stock has been written off since the decrease in sales. This is further evidenced by the decrease in acreage in shade trees, a luxury item, from 854 acres in 1932 to 480 acres in 1936.

In commenting on the labor involved in these enterprises, Mr. Soraci writes:

"It is interesting to note that in the counties comprising the first and second groups one man year of employment is given for each two and one-half acres of nursery stock, whereas in the counties of the third group one man year of employment is given for every five acres of nursery stock. This can be explained by the fact that eighty-two per cent of the nurseries comprising group 3 have holdings of less than ten acres, much of the work being done by the nurseryman himself or members of his family. In the counties comprising the first and second groups, however, only sixty-five per cent of the nurseries have less than ten acres in nursery stock. Another factor which may influence this higher rate of employment in the first and second groups is that, due to heavier concentration of nurseries in the areas comprising these groups of counties, larger sales forces and landscaping departments must be maintained."

According to the present survey, the number of nurseries having less than ten acres is 156, or a decrease of ten over 1932; thirty-two nurseries have ten to twenty acres, or eight more than 1932; ten nurseries have twenty to thirty acres, or one more than 1932; seventeen nurseries have thirty to fifty acres, or three more than 1932, and eighteen nurseries have more than fifty acres, or a decrease of one over 1932.

NEW JERSEY BUSINESS.

New Jersey nurserymen as a whole have been little affected thus far this year by the recession woes of which other businessmen complain. A comprehensive survey just completed by a correspondent of the American Nurseryman found most New Jersey nursery firms during the first half of the current year enjoyed volume at least equal to, and in many instances higher than, that of the corresponding 1937 period. Some nurserymen reported smaller but more numerous orders, while others found volume down slightly, but profits higher. In contrast with general New Jersey business conditions, comments indicated the nurserymen have been unusually successful in either maintaining or increasing volume and profits. Optimism prevails as to the future outlook.

"The volume of business which we did in the spring of 1938," declared Lester C. Lovett, of Lovett's [Concluded on page 8.]

Identifying the Lindens

Eighth in Series of Articles Discusses Characteristics of the American Linden, Tilia Americana—By Leon Croizat, of the Arnold Arboretum

It is well known that the classification of the lindens of the North American continent is intricate and quite controversial. From the woods of southeastern Canada to the hills of central Mexico, from the lowlands of the southern Atlantic coast to the middle west, almost to the foot of the Rocky mountains, range many forms of *tilia* that have either narrowly local or broadly regional interest. The botanists who are concerned with the naming of these forms seldom are agreed except on bare essentials. Between Delaware and Florida some authors list fourteen or fifteen species. In the same region other botanists admit as valid not more than half that many species.

The landscape architect and the nurseryman, fortunately, are spared the difficulties and troubles that beset the botanist. Without harm resulting, the name "American linden," or basswood, is accepted in the trade for several *tilia* that to the botanic science must remain distinct. Broadly speaking, the commonly cultivated American lindens all have the same aspect, the same habit, the same comparatively large leaves and the same late time of flowering. In design and in landscaping they all answer the same purposes. For practical needs the plantsman has no necessity of indulging in subtleties. A knowledge of the most commonly cultivated species, nevertheless, is useful because, small as the apparent differences may be in American *tilia*, much better results are secured by planting material that is nearly of the same species. The most serious drawback against the use of American lindens is that their habit is irregular and that no one can foretell whether a tree that appears to be regularly formed as a sapling will retain its shape when fully mature. Certain specimens are as beautiful and as dependable as the best European stock; others get out of shape and end by being unpleasingly open. The growth seems materially to be influenced by conditions of soil and by irrigation; well shaped, pyramidal or columnar, reasonably compact specimens thrive mostly in rich and well watered situations. Regardless of habit, the range of variations that occur

even among true basswoods, *Tilia americana*, also called *Tilia glabra*, is strikingly shown where these trees are used for street planting. Nearly every tree differs from all others in some detail of color, size and form of leaf. It is obvious that a species which is liable to so many changes, that is collected and cultivated in many strains, should not be further confused with other material.

With the exception of that in the southern states—in which collected material is sometimes used, including forms that have leaves bluish ashen underneath; for instance, *Tilia venulosa*—the stock of cultivated American lindens is composed of three main species, the basswood, *Tilia americana* or *Tilia glabra*; the gray linden, *Tilia neglecta*, and the bee tree, *Tilia heterophylla*. These species and their varieties, when not in leaf, are so much alike that they cannot be separated except by guess. In all, the bud is comparatively short, stout, tapering to an abrupt tip, altogether unlike the bud of the lindens of Europe. The twig, especially after the frosts set in, is mostly dark purplish or wine-colored, with the bark of the last season's growth flaking, or at least loosening up here and there, and appearing grayish. Hairs are not present except occasionally on shoots that may chance to grow at the very end of the season.

The flower and the flower cluster are wholly alike in the three species, a comparatively great range of variation occurring, however, among trees of the same species. The flower does not spread when open, has numerous stamens and an inner row of stunted petals, or staminodes. The flower cluster is usually stout, definitely drooping, often many-flowered. The stemlets that directly support the blossom are club-shaped. Often found in the core of the undeveloped fruit, or ovary, is a purplish spot. The mature fruit exhibits slight individual variations, but is fairly characteristic for each one of the three species. The basswood has a smooth nutlet, that tends to be round. The gray linden has thinly hairy fruits, that are longer than broad. The bee tree not seldom has two seeds in its flat-topped or pear-shaped "ball." In

these as much as in all other lindens the fruit is an important character of identification, which must be had if an ironclad definition of the specific name is required.

Scarcely less important a character than the fruit, if actually not more important than it, are the nature and amount of hair that is found on the back of the leaf. Only mature leaves—that is to say, leaves at least ten days old—should be studied, because very young leaves are more or less hairy in all the commonly cultivated American lindens. Mature leaves show thus:

(a) American linden—Hairless except for tiny tufts of hair at the fork of the veinlets. Certain forms occur that have almost no tuft at all. In all forms the tuft at the insertion of the petiole is much reduced or altogether suppressed.

(b) Gray linden—Has a thin coating of star-shaped and bristlelike hairs which cause the young leaf to appear grayish, or weakly silvery.

(c) Bee tree—Definitely silvery, though less heavily so in most cases than the European *Tilia tomentosa*. Its tufts are brownish. In a form called Michaux's linden, *Tilia Michauxii*, by some authors no tufts occur.

The practical plantsman has little occasion or need to worry about the characters that distinguish the gray linden from the bee tree. At times the dividing line between these species wears very thin, and it is an open question whether Michaux's linden should follow the gray linden or the bee tree as a variety. It is necessary, however, not to confuse the basswood with the gray linden and the bee tree, because its leaf is, or tends to be, unlike that of the last two species. In the basswood the blade has a shape and size that in the majority of the trees come near to those of *Tilia platyphyllos*. In the gray linden and in the bee tree the leaf tends to be bigger and egg-shaped; that is to say, definitely longer than broad. In mass planting these differences tell, and it is advisable that care be taken to avoid them. This can be done by selecting material for planting in leaf and knowing how to keep the species distinct.

The American lindens, as such, can-

not be confused with the lindens of the Old World because they differ from these in all the characters of the flower and in the much sharper, bristle-like teeth at the margin of the leaf. I have seen, however, leaves of the red linden that could easily be mistaken for very small leaves of basswood. The lack of a tuft of hair at the insertion of the petiole and the slightly stronger teeth distinguished the latter from the former. The gray linden has been badly confused by European botanists with the flabby linden, but the ovary of this hybrid lacks the purplish spot frequently found in the ovary of *Tilia neglecta*, and is altogether different on all the characters of its flower and flower cluster. The bee tree may suggest *Tilia tomentosa*, and even more closely Moltke's linden, which is the hybrid of *Tilia tomentosa* with *Tilia americana*. The silvery European linden and its hybrid with the basswood, however, have altogether different buds, usually less large and less coarse leaves, much weaker teeth at the margin of the blade, larger fruits and frequently a deeper green color. The twig in winter also is quite unlike. The bee tree's, as I have noticed, cannot be distinguished from the twig of *Tilia americana*, while the hairy branchlet of *Tilia tomentosa* and the last season's growth of *Tilia Moltkei* have nothing in common with the shoots of the basswood.

WHITE-FRINGED BEETLE.

An intensive investigation for traces of the white-fringed beetle has been started by nursery inspectors of the New Jersey department of agriculture.

The beetle is thought to have been brought into New Jersey in the larval form on recent shipments of approximately 7,000 plants from the New Orleans area. Since these shipments have been received in New Jersey the New Orleans area has been put under quarantine for this insect.

Destinations of the shipments of these plants have been traced, but because nurserymen have made cuttings from this stock it is difficult to determine their final destination.

It is feared that if this beetle is able to adapt itself to the cooler climate and changed soil conditions of New Jersey, it may become a greater destructive pest than the Japanese beetle. The white-fringed beetle is known to attack truck crops

of the nature grown in New Jersey and in the south it thrives on some shrubs and trees as well. B. J.

NEW JERSEY BUSINESS.

[Concluded from page 6.]

Nursery, Little Silver, N. J., "slightly exceeded that which we did in the spring of 1937. In fact, the volume of business done throughout the months of March, April and May greatly exceeded the volume of business done in the corresponding months in 1937. However, because of the fact that we experienced such warm weather during the greater part of March and early part of April, our shipping and planting season ended ten days or two weeks earlier than it did a year ago, which resulted in the May volume being considerably less than it was a year ago."

Optimistically facing the future, Mr. Lovett further stated: "Even though general business conditions are far from bright, we are looking to the future in a rather optimistic way, believing that there is not nearly so much well grown ornamental stock which will be available for shipment the fall of 1938 and spring of 1939 as there has been in former years. In fact, we have increased our acreage to the extent of about twenty per cent and have already had the good fortune to book a good many rather important orders for fall delivery."

Paramus Nursery, Inc., Paramus, N. J., reported business five per cent better during the first half of the current year than in the like 1937 period. Orders were said to be smaller. This firm enjoyed a good growing season and believes future prospects are good. It adds, however, that many prospects failed to materialize because of the general business uncertainty.

Although in the first half of 1938 volume dropped one-third, George Jennings, of New Jersey Foresters Nurseries, Ralston, N. J., said earnings were up twenty per cent because of reduced inventory and reduction in new equipment purchases.

E. D. Pannell, of North Jersey Nurseries, Millburn, N. J., declared: "As far as we can see now, we have as many orders as we had during the spring of 1937, but they will not aggregate so much volume."

"We find business for the first

six months to be equal that of last year," commented E. A. Turner, of Turner Bros., West Long Branch, N. J. "With us there is not a variation of \$200 or \$300 in volume. With a good advertising campaign, we expect our autumn sales will be fairly good also."

Verkade's Nurseries, Preakness, N. J., reported: "Our sales were better last spring than in 1937. Although collections were slow, we cannot complain on the whole."

These comments typify the sentiment among New Jersey nurserymen, indicating that, while the recession was felt to some extent by these firms, it did not make the inroads noticeable in other lines of trade. There seems to be an even greater spirit of optimism regarding the remainder of the current year than was noticeable among New Jersey nurserymen at this time last year. B. J.

MICHIGAN INSPECTION FEES.

A minimum inspection fee has been decided upon by the Michigan inspection department officials. This fee is to make the department more self-sustaining, as the last legislature failed to appropriate funds for the inspection service.

Nurserymen must pay the minimum fee of \$5, for which five acres may be inspected, and for acreages from six to ten acres an additional \$1 per acre will be assessed; ten to twenty-five acres, 85 cents; twenty-five to fifty acres, 65 cents; fifty acres or more, 50 cents.

These fees have been established with the hope of equalizing the burden of the inspection service.

INSECTS DAMAGE MAPLES.

Much damage to sugar maples has been done by an extraordinary outbreak of forest tent caterpillars in much of New England and New York state. The trees attacked include those along roadways, in parks and in private grounds. A large number of the trees have lost their upper foliage, which may result in serious injury to them. It is recommended that these trees so damaged be liberally fed with a good fertilizer to restore some of the vitality lost by the stripping. The feeding should be followed by arrangements for spraying next June, because the large number of moths now flying indicate another infestation next year.

Some Saxifrages for American Gardens

Varieties of Rockfoils of Ornamental Value That Are Not Too Difficult to Grow in This Country—By C. W. Wood

Horticultural writers in this country have long found fault with nurserymen because we do not carry a long list of saxifrages, seldom stopping to think that growing conditions in the United States are quite different from those in the British Isles. Anyone who bases his opinions of a plant's cultural needs on what has been found to be the best practice in England and Ireland is apt to change them radically after trial. Any American nurseryman who tries to follow in the footsteps of his brothers on the other side is quite sure to find his balance sheet liberally sprinkled with red ink. There should be a happy medium, however, between what unthinking writers say we should do and our own do-nothingness.

In reference to conditions in eastern United States, it is safe to say that few saxifraga species of garden value other than the incrustated group are to be trusted with the average gardeners. The Kabschya group, the most exacting and the most difficult of the saxifrages—brilliant, rare species that want special attention if they are to thrive permanently, as Farrer puts it—is definitely out of our class. They may be grown by the careful, experienced gardener, to be sure, as a few like the late Clarence Lown has shown, but for you and me of limited time they are out of the question and they are far beyond most of our customers. A friend of mine formerly listed a number of Kabschyas, but gave them up because his customers found them impossible and invariably came back for replacements.

The writers, presumably after seeing how the plants behave in English gardens or after reading about them, go into ecstasies over *S. oppositifolia* and its cousins in the porphyron group, bemoaning the fact that they are not available in this country. Let one of them who has a dry soil to contend with try to grow *oppositifolia*, *Wulfenia* or any other of these moisture-lovers and see how far he gets. When I had a moraine in good working condition, I grew them fairly well and have grown them in pots, but they are

positively not garden plants in this section.

Nor are all plants bearing the name "saxifraga" of sufficient ornamental value to be worthy of garden room and care. The curious nephrophyllum section is scarcely worth the effort to keep them going; the boraphylla group, of which our own *S. virginianensis* is an example, requires more moisture than the average garden affords, and the marsh-loving *hirculus* section has the same fault. All this may sound rather pessimistic and quite outside the title with which we started, but it has been necessary to include this dark side of the picture so that the ground would be clear for the pleasing part which is to follow.

After one has successfully grown many saxifrages, it is easy to follow Correvon when he says that "with the androsaces and the sempervivums they constitute the real, the true, rock plants" and to agree with Farrer in his statement that "from age to age, by every race, in every clime adored, the family of saxifrages rules unquestioned, unquestionable sovereign of the rock garden." The easy incrustated kinds make it possible for most American gardeners to verify the truths there set forth. All that is needed is crevices or ledges in a wall, or steep slopes in the rock garden if the soil is naturally heavy, or almost any well drained spot in sandy soil. I grow them perfectly in level beds in my light sand and never have to worry about the rotted rosettes mentioned by some writers. If the soil is heavy it would be well to lighten it with a fair quantity of stone chips, preferably lime, and the addition of leaf mold is always to be recommended. Given the foregoing conditions and some shade during the warmest part of the day in hot sections of the country, there are few gardeners who cannot enjoy these beauties. The reason more do not grow them is because the plants are unknown to many people, and commercial growers have failed to inform them. There should be a place in every neighborhood nursery for a few of the best of these silvered

kinds, and it will be the purpose of the next few paragraphs to point these out.

Although I should not care to go so far as some in saying that *S. Aizoon* is the best of all rock plants, I can agree with the statement that forms of it are among the best. It is not apparent that the true species as described by Jacquin is in our trade. That does not, however, lessen the value of the plant, especially in its best form. The species is highly variable, to say the least, and it will take careful choosing to find the best. It may be grown from seeds, but anything is likely to come out of a packet and growth during early stages is quite slow, and so it is usually better to buy plants and reproduce them vegetatively. The best forms of *S. Aizoon* that are generally available in this country, according to my experience, are *baldensis*, *flavescens*, *lutea* and *rosea*. The first of these is the smallest manifestation of *Aizoon* that I have seen, its minute rosettes of ash-gray, heavily incrustated leaves and whitish flowers rivaling the difficult *Kabschyas* in their beauty. The second and third mentioned are mainly noted by garden standards by their yellow flowers, clear lemon yellow in *flavescens* and much deeper in the other, rather than the whitish to greenish white of the usual *Aizoon*, while in variety *rosea* the flower color is a lovely deep pink. My personal choice of the foregoing is variety *baldensis*, an easy, beautiful little charmer when established in a not too hot crevice.

Going to the other extreme in incrustated species, we have the glorious plant *S. Cotyledon* or *S. C. pyramidalis* or *S. pyramidalis*—the names are used interchangeably and mean the same thing, I believe, so far as material in this country goes. This is a noble plant, making a large rosette and sending aloft an airy panicle of white flowers if it is true *Cotyledon*, and white speckled with crimson in variety *pyramidalis*, up to two feet high in the type and as much as four in the other. Both are splendid plants and easily grown, and need only be shown to make

sales. They are also easily propagated, as are all the incrustated kinds that make offsets, by detaching the new rosettes and rooting them in sand or light soil.

That brings us to *S. longifolia*, "the grandest of the great saxifrages" and one of the loveliest plants that I have ever grown. Unfortunately, it is monocarpic and, as it makes no offsets, it therefore leaves no offspring to carry on its message of beauty. Even though it is readily grown from seeds, gardeners do not want a plant that dies as soon as it flowers, and so there is little likelihood of this saxifrage ever becoming popular. It has, however, as have so many of this group, given us some lovely hybrids. Perhaps the loveliest of these that are available in this country is the one known as Tumbling Waters, which has something of the magnificence of the parent's rosette, with the added virtue of producing offsets and a 3-foot spike of pure white flowers. It is still in the novelty class, but holds great possibilities in the hands of specialists. Like most of the incrustated kinds, *S. longifolia* and its hybrids are easily managed in the garden, the most thrilling effects coming from our present plant if it is given a soil on the rich side.

There are many other incrustated kinds that should be mentioned, but space will not permit a detailed account of all. Engler names seventy-seven natural varieties and twelve hybrids of *Aizoon* alone, while the addition of garden varieties and hybrids would extend that many times. A good plan for the neighborhood grower, to whom saxifrages offer the most opportunities, is to watch the lists of specialists for the better kinds, or better yet, visit a good collection and make personal selections. Gone into with the proper knowledge and sufficient communicable enthusiasm, these silver saxifrages should be a good venture. Do not depend too much on names in nurseries and gardens, for nomenclature among saxifrages is hopelessly confused, but check plants against a reliable guide like Bailey's "Standard Cyclopedia of Horticulture," and buy on looks rather than descriptions. And may the gods smile on your efforts in the way all nurserymen desire!

Before closing these notes on rock-foils, a few words of praise and warning should be written on the

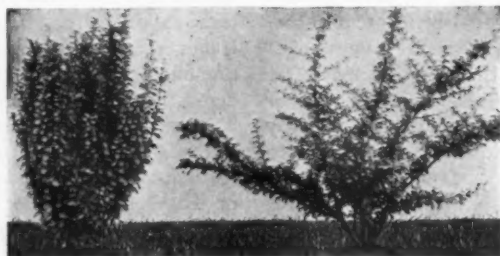
mossy section. Admittedly, there are some beauties among the mossies, but it must be admitted, also, that they cannot take unadulterated sunshine during the hot months of the year unless they have a constant supply of moisture trickling between their roots and then, in hot sections, it would be better to grow them on a north wall or at least where full sunshine will not reach them during the middle hours of the day. Do not, however, try to grow them under trees, for moisture dripping from the branches will be a constant source of trouble. Give them a soil similar to that recommended for the silvers, not forgetting a liberal portion of leaf mold, and top-dress them with the same combination at least once a year, rubbing the mixture well among the tufts. In any case, they will need watering during hot, dry weather. If the foregoing conditions can be provided, many mossy saxifrages should be useful over much of the northern section and are worthy of trial.

It would be useless if it were possible to give a list of the mossy kinds, for their number is legion and their naming is rather confused. For a

beginning, because it is among the easiest, *S. trifurcata* and its variety *ceratophylla*, with white flowers over mounds of dark gray green foliage, are to be recommended. They seem to stand more baking than others and are only a little less lovely. Other fairly easy ones follow: *S. caespitosa*, three inches, white; *S. decipiens*, five inches, various colors, including white, pink and cream; *S. hypnoides*, four inches, white, also many varieties. They may be endlessly multiplied from cuttings.

AZALEA DISEASE SURVEY.

In answer to a request of Oregon nurserymen that the United States Department of Agriculture send an expert to study disease conditions among the native azaleas of southern Oregon, Dr. F. P. McWhorter, federal plant pathologist, Oregon State College, is carrying on a survey in the regions in question. The survey will attempt to determine the presence or absence of disease in the natural habitat of the azalea, and a soil survey will be made with the idea of correlating types of growth, locations and other factors with soil types.



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WORLD'S FAIR PLANTINGS.

The American Telephone & Telegraph Company's landscape contract at the New York world's fair has been awarded to the Outpost Nurseries, of Ridgefield, Conn. This is to be the largest privately landscaped project on the world's fair grounds and involves some unusual planting.

The theme will be the Pine Bosque, calling for the moving onto the grounds of about 200 full-grown white pine trees thirty feet high, weighing approximately eight tons each, which will be planted on 16-foot centers. The stems of the trees will be branched up eight feet from the ground, making it possible to walk through the pine grove and have a ceiling of branches just overhead. The entire area of the ground under the pine trees, covering several acres, will be covered with four inches of pine needles, brought in from the white pine country in northern New York and New England, the idea being to reproduce a perfect pine woods.

In another section are to be planted thirty huge white wisteria vines thirty feet high, and rambler roses eighteen to twenty feet high, to be trained over large globes. There are to be great concrete vases eighteen feet across, in which will be placed wind-blown cedars of the most unusual forms, which will be collected from the wind-swept hills along the coast of Maine.

The planting also involves thousands of bedding plants, which will be changed several times during the fair, in order that there will be a continuous bloom from early spring until late in the fall.

The company is under contract to have this work completed by April 15, 1939.

The creator of this unusual landscape design is the firm of Vitale & Geiffert, nationally known landscape architects, New York city, under whose supervision the work will be carried out.

Another interesting contract which has been awarded to the Outpost Nurseries is the landscaping of approximately four acres of grounds around the buildings of the Radio Corporation of America, on the site of the New York world's fair. This planting includes many large or full-

Visitors to the American Association of Nurserymen Convention

are cordially invited to inspect the 400 acres of nursery stock at

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Austrian Pine

Scotch Pine

White Pine

Concolor Fir

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and many other varieties.

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grown shade trees, which have already been selected in Pennsylvania and Delaware, as well as 500 hemlock trees, which will be clipped into formal and unusual hedges of different shapes.

There are to be 18,000 white tulips planted in readiness for the opening of the fair, and these will be removed after blooming and replaced by 18,000 lavender tulips.

The contract also involves the building of several beautiful reflection pools and the planting of many thousands of ground cover vines, such as English ivy, evonymus and Japanese spurge.

The designer of these gardens is Michael Rapuano, landscape architect, New York city. Like all other contracts at the New York world's fair, this, too, must be completed by April 15, 1939.

NORTH CAROLINA FEE.

The North Carolina reciprocal agreement relative to payment of fees for registration of out-of-state nursery inspection certificates goes into effect October 1, 1938, according to an announcement from C. H. Brannon, state entomologist.

The announcement states that all nurserymen in states that require a registration fee from out-of-state nurserymen will be required to pay the same fees in filing certificates for

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6 to 8 feet.....	5.50	50.00
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shipment into North Carolina, on and after October 1, 1938.

THE rose garden on the Hershey estate, Hershey, Pa., is again open to the public, according to an invitation issued by Alexander Stoddart. This garden, containing more than 20,000 roses in more than 500 different varieties, attracted 200,000 visitors last year.

Pacific Coast Convention

*Thirty-sixth Annual Meeting of Pacific Coast Association of Nurserymen
Held Jointly with First Meeting Washington State Organization at Seattle*

The thirty-sixth annual convention of the Pacific Coast Association of Nurserymen, which was held jointly with the annual state meeting of the Washington State Association of Nurserymen, opened July 6, in the Jade room of the New Washington hotel, Seattle, with H. M. Eddie, president, in the chair.

After the invocation by Reverend Berg, the assembly was welcomed by the Hon. Arthur B. Langlie, mayor of Seattle.

The address of President H. M. Eddie was brief and to the point, as he paid tribute to Charles Malmo, Sr., Seattle, and B. A. Mitchell, Orenco, Ore., whose sudden deaths during the past year had elevated him to the chair. Without the valuable assistance and cooperation of W. L. Fulmer, president of the Washington state association, and Howard E. Andrews, ably seconded by Daniel J. O'Donnell, of the state inspection force, he could not have handled all the convention details, he stated.

The report of Walter A. Dimm, secretary-treasurer, showed a satisfactory growth in the membership during the past year, but the credit information service maintained for the use of association members was not being used to the fullest possible extent, he said.

Discuss National Association.

Benjamin J. Greening, of the Greening Nurseries, Monroe, Mich., expressed his surprise at the size and luxuriance of growth he had observed in the many nurseries he had visited in the Pacific northwest. He predicted a steadily growing demand for nursery products from less favored sections of the country.

Chet G. Marshall, vice-president of the A. A. N., told of nursery stock conditions in the Mississippi valley, predicting that the northwest would find there a ready and growing market, particularly in lining-out stock, which could be more easily propagated here. Replanting demands would begin after the current year, he stated, to cover a loss estimated as at least forty per cent of the total plantings in Nebraska alone.

At the request of the chair, Mr. Mar-

shall told of the progress of the national association and its current work. Statements followed from A. H. Steinmetz, member of the executive committee of the A. A. N., and Howard E. Andrews, state membership chairman. B. J. Greening followed with a discussion of quarantine 37. His forceful remarks on the present situation expressed the views of the majority present. A lengthy letter from Richard P. White, executive secretary of the A. A. N., was read.

"State Nursery Licenses" was the subject chosen by Clayton Lewis, who traced the wide variations in fees charged by different states. Regulations and rulings were contradictory, and he advised careful checking of all information before shipping.

Mr. Greiner, of the Oregon state inspection service, outlined the Oregon requirements and followed with a plea for lowering or eliminating such trade barriers. Mr. Olds, of the British Columbia and Canadian import inspection service, detailed the Canadian procedure, after explaining what pests and diseases were not yet introduced into British Columbia, or only to a limited extent.

The relation of tariffs to the filbert industry of the northwest was ably discussed by Harry L. Pearey, who showed the dangers of reciprocal trade agreements to agricultural and horticultural interests of various sections. Admission of cherries in brine from Italy under the reduced duty two years previous had seriously threatened the cherry industry of the Pacific coast, while pending agreements were endangering the growing of filberts, already a \$2,000,000 industry in Oregon and Washington.

Advisory Board Meeting.

A meeting of the Washington state nursery advisory board was called for 7 p. m. Members included Benjamin Stooky, Olympia, Wash., for holly growers; J. J. Bonnell and Howard E. Andrews, Seattle, Wash., for growers of fruit trees and seedlings; Charles Orton, Sumner, Wash., for growers of narcissus, iris and tulip bulbs; Fred May, Yakima,

Wash., for growers of fruit trees and seedlings; O. M. Pudor, Puyallup, Wash., for perennial growers; Frank Chervenka, Sumner, Wash., for rose growers; Ralph Pommert, Pacific City, Wash., for gladiolus growers; Charles E. Sullivan, Seattle, Wash., for retail florists of western Washington; Clyde Lester, Walla Walla, Wash., for retail florists of eastern Washington; J. Fred Austin, Spokane, Wash., for wholesale florists; Claude L. Shride, Vashon, Wash., for lily growers; Wallace M. Beall, Vashon, Wash., for western Washington greenhouse growers; Harry R. Fisher, Spokane, Wash., for greenhouse growers of eastern Washington, and Gordon Edwards, Bellevue, Wash., for landscape gardeners.

Talk on Credits.

The feature of the evening session was a talk on credits by H. R. Taylor, of Dun & Bradstreet, Inc. In his talk, Mr. Taylor traced the need for credit information from the opening of the Erie canal in 1825 to the present time, when the successive introductions of railroads, automobiles and airplanes have welded the nation into one business community and speeded up business to a tremendous extent.

Second Day.

The second day of the convention was opened with an informal discussion of the future of the association, after a brief recommendation of the committee under the chairmanship of Fred May, appointed for that purpose. After several members had stated their opinions and the committee had contacted about seventy-five per cent of the attendance, they retired to formulate their final report while the convention took up a well filled program.

Benjamin M. Smith, prominent attorney, was introduced by Howard E. Andrews and spoke at length on "Labor Problems." With labor rapidly organizing and in spite of the specific exemptions of the Wagner act, nurserymen felt that some specific organization to deal with such problems was not only desirable, but vitally necessary. Mr. Smith told of the organization of the



At Session of Convention of Pacific Coast Association of Nurserymen, at Seattle, Wash.

Associated Farmers of Washington, with a membership of over 10,000, a body to which the association might look for help.

A talk on the University of Washington arboretum, scheduled to be given by Frederick Leissler, was delivered instead by Mrs. Krause, of the arboretum foundation, after an introduction by W. L. Fulmer, president of the Washington State Association of Nurserymen. The arboretum, comprising some 260 acres, has been improved through the use of \$1,000,000 of W. P. A. and P. W. A. grants.

A nursery tract of between nine and eleven acres is in active operation, and two greenhouses, each 30x60 feet, as well as two propagating houses, each 8x60 feet, were constructed. Already more than 7,500 plants, comprising 2,500 varieties and species, have been planted.

Landscape Problems.

Fred Cole, prominent landscape gardener of the Pacific coast, was called upon to speak on landscape problems. He began by pointing out that fifty per cent of the recent rose plantings he had made had proved wrongly labeled at blooming time. He hoped that the assembled nurserymen would "mend their fences" in the near future.

Then he took up the fertilization problems common to all those present. As victims of the machine age, nurserymen depend more and more on chemical manures. The labels on these bags indicate the amounts of fertilizer available, but they give no hint of what the inert ingredients are. Tersely he mentioned the poundage of nitric acid, sulphuric acid and black alkali left in the ground by a stated fertilizer. "That is hardly a growing medium for plants," he stated. "Nurserymen are faced not only by the problem of feeding proper fertilizers to their growing crops; they must get rid of destructive residues left about their plantings by the use of chemical applications."

Plant Clinic.

After a luncheon of the Washington State Association of Nurserymen, the afternoon was devoted to a plant clinic, with trained men present from the Washington and Oregon agricultural stations, Daniel J. O'Donnell introduced the speakers.

Dr. Glen A. Huber, plant pathologist at the western Washington experiment station, spoke on chemical sterilization of outdoor soils, for which steam proved impracticable. Formaldehyde treatments are still the best known methods. Western Washington and Oregon furnish another problem in an excess of rain and moisture in cutting and seed beds. Yet drought from lack of deep watering of these beds during the dry summer was responsible for most of the nurserymen's complaints. Among his recommendations was that Bordeaux mixture be used only in early morning or late afternoon, since such applications showed less burning on tender plants. In pruning for disease showing upon nursery stock, such pruning should be done as quickly as possible after disease was noticed and with no regard to the favorable time to prune such subjects.

He was followed by Dr. John Milbraith, plant pathologist at the Oregon State College, who first spoke of entomological work on the leaf miners of the holly.

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Representatives at the Convention

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With a \$15,000 appropriation from the Oregon legislature, he said also work has begun on a fungus of the dwarf arbor-vitae, better known as the Berckmanns blight, that had caused considerable losses in such plants. This work showed that the blight could be controlled if fought during the first two years of infestation. By spraying with Burgundy mixture, six out of eight were cleaned and two showed only slight infestation. Use of Bordeaux mixture showed thirteen clean and eleven showing only slight traces of the blight. Red copper oxide in suspended solutions

proved the best spray. Thirty-nine plants so treated showed twelve clean and on seventeen only one or two discolored tips, while seven required further treatment. The disease was found to attack other members of the Oriental group, though especially severe on the Berckmann variety, and regular spraying was recommended even if no trace of the blight was apparent.

Blue Lawson cypress was found to suffer from a most destructive root and crown fungus that was peculiarly a Pacific coast disease. It could be recognized in lining-out stock by a purplish

discoloration near the surface of the ground and the lighter tips above. This newly discovered pest will be difficult to control, and no suggestions could be offered as yet other than to burn affected plants. It might require the development of resistant stocks.

Questioning brought out that arborvites should be sprayed in September just before the rains begin and on a dry day to permit the spray residue to harden upon the growths. Midsummer spraying, while it might help protect the growths then growing, left later-appearing shoots unprotected. Another spraying in January might be beneficial, but if dampness prevented the spray from drying upon the plants, the washing effect of following rains prevented the spray from being effective. A red copper oxide in solution did not discolor so much as other sprays, while a 4 to 50 Bordeaux mixture proved the least discoloring.

Insecticides.

Dr. E. P. Breakley, entomologist of the western Washington experiment station, a newcomer to the Pacific coast, spoke of his background of training at Wisconsin and other central states before discussing insecticides obtained from plants. These are rotenone, pyrethrum and nicotine. Rotenone has proved of slower action, but is more powerful than either of the other better known poisons. Rotenone, while deadly to insects, is nonpoisonous to man when taken through the mouth. Tabulated results of the use of these agents were full of contradictions caused by the use of various solvents, some of which destroyed the toxic principles to varying degrees. Acetone, most widely used with rotenone, proved least destructive. Nicotine required the addition of an alkaline, usually obtained by the use of soap.

In the absence of W. B. Courtney, nematologist of the United States Department of Agriculture, Henry J. Reynolds spoke briefly on nematodes.

Dr. L. C. Wheetting spoke on soils and followed his talk with demonstrations of soil testing, while the staff of specialists was bombarded with questions from the assembly.

Banquet.

The president's banquet was held at 6 p. m. in the Gold room of the New Washington hotel, and at 8 p. m. motion pictures in full natural colors taken by Walter R. Dimm during his tour of European flower shows were shown with a running commentary by the secretary.

Oppose Freight Rate Changes.

"Freight Rates" was the subject chosen by Charles Orton, prominent bulb grower, to open the final session, July 8. After stating the bulb growers' problem in rising freight costs to their eastern markets, he showed that the attitude of all western railroads over the proposed changes was sympathetic toward the growers. Three classifications on nursery stock from the Pacific coast to eastern points are now in force, apart from the small-lot shipments, which have been totally lost by railway carriers. The carload-lot rate with a 15,000-pound minimum has been raised from \$2.23 to \$2.51 per hundred pounds in the past two years. The carload-lot rate with a 20,000-pound mini-

mum was raised from \$1.87 to \$1.92 and is now \$2.06 per hundred. The carload-lot rate with a 30,000-pound minimum was raised from \$1.50 to \$1.55 and is now \$1.65. This latter classification was the one most used by bulb growers, and from the Sumner district alone twenty-nine such carload shipments went out and only two under the other minimums. The proposed abolition of this classification except for balled and burlapped nursery stock would add one-third or more to the freight charges, an item that must be borne by the shipper and would cut off any profit.

J. J. Bonnell was called upon to speak from the standpoint of the shipper of ornamentals and evergreens. The 30,000-pound minimum shipment rate was first made to enable western growers to compete with growers of ornamentals in eastern districts. Its use was largely confined to mixed cars containing deciduous stocks and fruit tree seedlings. Eliminating such classifications from that minimum will hurt growers, particularly those of seedling stocks, since nearly ninety per cent of these now come from Oregon and Washington points. If to date it has not proved so helpful as was expected to growers of other lines, its curtailment must stop much of the improvement that had been made in the trade.

The convention went on record as favoring the retainment of this classification.

Quarantine 37.

Plant quarantine 37 and its proposed modification or any suspension of its provisions was discussed at length by Prof. G. R. Hyslop, of Oregon State College, who showed that the Pacific northwest states were the leading producers of the products covered by the quarantine as well as leaders in pest control. He traced eastern enforcement since the inception of the quarantine and showed that, while there were inconsistencies in the measure, what was needed was not a letting down of the bars because of reciprocal treaties, but a tightening of enforcement efforts.

J. R. Griner, supervisor of horticulture for the state of Washington, followed and amplified many of Professor Hyslop's statements. The quarantine and economic effects of the problem

could not be divorced, he said. He had acted always with both viewpoints in mind, and if he had acted often without consulting the membership of the association, he felt that he was acting in their interests. After his talk he was given a vote of confidence from his audience.

Marketing.

In the absence of F. A. Wiggins in the east, his paper on "Selling Northwest Products" was read by Howard E. Andrews. While climatic and growing conditions in the Pacific northwest favor the nursery products from those states, northwest growers must familiarize themselves with eastern requirements and grades before attempting to enter that field. They must confine their ambitions to those items that can be produced better and cheaper after the addition of the considerable freight costs to that market.

Growers who could not ship in the carload lots demanded could nevertheless cooperate in the production of such lots by generous grading, careful packing and attention that extra freight costs would not accrue from their deliveries to a common loading center. Packing and grading must be right to obviate any discount demand from the buyer after the shipment reached him. Ninety per cent of the fruit tree seedlings used in this country now come from Oregon, Washington and California, as well as a large proportion of the rose stocks, while there was an increasing amount of forcing azaleas and forcing rhododendrons entering the eastern market from western growers. Careful digging, grading and packing must be stressed if such business is to grow in volume, and above all, growing costs must be ascertained if the grower is to secure a profit.

Officers Elected.

The nominating committee reported the following slate, which was accepted unanimously: President, J. G. Bacher, of the Swiss Floral Co., Portland, Ore.; vice-president at large, Frank Schmidt, Troutdale, Ore.; secretary-treasurer, Walter R. Dimm; vice-president for the state of Washington, J. J. Bonnell, Seattle; vice-president for Idaho, E. O.

MOUNT ARBOR NURSERIES

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ORNAMENTAL TREES AND SEEDLINGS, all types

Ask for our FALL TRADE LIST, available in September. Send us your WANT LISTS, we are always pleased to quote prices.

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Noral, Boise; vice-president for California, R. S. Hartman, San Jose; vice-president for British Columbia, E. E. Greenwood; vice-president for Utah, F. W. Walton; vice-president for Oregon, C. E. Moyer.

Portland was chosen for the convention in 1939, and the date selected is to coincide with the conventions of the Oregon State Association of Nurserymen and the American Association of Nurserymen, if the latter is held there.

In the adoption of the final report of the committee on the future of the association, it was decided to curtail some of the features now offered, such as the credit service, and to place the annual membership fee at \$2.50 for concerns doing less than \$10,000 business annually and at \$5 for those doing more. A concerted drive for more members will begin at once.

Organize A. A. N. Chapter.

A Washington chapter of the American Association of Nurserymen was organized at a noon luncheon at the New Washington hotel July 7. Howard E. Andrews was elected chairman; W. L. Fulmer, secretary-treasurer, and H. M. Eddie, delegate.

DIMM RETURNS FROM TRIP.

Walter R. Dimm, secretary of the Pacific Coast Association of Nurserymen, returned to Portland, Ore., June 29 from an extensive trip abroad. The principal countries of the Continent were included in the trip. Mr. Dimm, a member of the firm of Sweeney, Straub & Dimm, printers of flower catalogues, brought back 2,300 feet of colored film taken at the flower shows visited and some of Europe's scenic spots.

Mr. Dimm visited the Belgian national flower show at Ghent, which in a week attracted a million people, and he viewed thousands of acres of tulips and hyacinths in Holland. He also visited the Chelsea flower show at London, which drew many thousands of visitors at \$2.50 each.

Regarding conditions abroad, Mr. Dimm stated:

"European people themselves are peaceful, but preparations for war are everywhere evident. In Italy and Germany every third or fourth man you meet wears a uniform. In England, the armament program is going on at a tremendous pace, so fast that industrial builders cannot obtain structural steel inside of six months after ordering." He referred, however, to the fact that "the country is going through a period of rapid industrial expansion. Building in the vicinity of London exceeds that anywhere in America."

TRAVEL FROM COAST.

Among those who are on their way to Detroit from the Pacific coast for the convention of the American Association of Nurserymen are C. B. Miller, Milton Nursery Co., Milton, Ore.; Avery H. Steinmetz, Portland Wholesale Nursery Co., Portland, Ore.; John Holmason, Pacific Coast Nursery, Inc., Portland, Ore.; E. M. Dering, Peterson & Dering, Inc., Scappoose, Ore.; Earl Houseweart, Houseweart's Nurseries, Woodburn, Ore.; Paul Doty, Doty & Doerner, Portland, Ore., and Wayne McGill, A. McGill & Son, Fairview, Ore.

We offer for Fall 1938 and Spring 1939 our usual line of

HARDY FLOWERING SHRUBS, SHADE AND ORNAMENTAL TREES, HEDGE PLANTS, PRIVET, AMOOR RIVER NORTH, AMOOR RIVER SOUTH, CALIFORNIA, IBOTA AND IBOLIMUM. BARBERRY THUNBERGII in both finished and lining-out stock. FOREST TREE SEEDLINGS, in large quantities for soil-erosion control and reforestation. EVERGREENS, assorted in finished and lining-out stock. ORNAMENTAL VINES AND CREEPERS, NATIVE TREES, SHRUBS, EVERGREENS AND VINES for roadside and park plantings. HARDWOOD CUTTINGS. TREE AND SHRUB SEEDS. TENNESSEE NATURAL PEACH SEED. LINING-OUT STOCK is our specialty.

We are offering special prices for orders booked during July and August, prices guaranteed against decline up to October 1. All stock guaranteed to be first-class and up to grade or no sale.

Write for special summer trade list.

Send want list for special quotations before you buy.

Visitors Welcome.

Wholesale Only.

Nothing sold at Retail.

FOREST NURSERY COMPANY, INC. McMinnville, TENN.

Established 1887
By J. H. H. Boyd

J. R. Boyd
President

FRUIT TREE SEEDLINGS

Large growers of Washington and Kansas-grown Apple and Pear Seedlings; Portland-grown Mahaleb, Mazzard, Myrobalan and Quince stocks.

We carry a complete line of general nursery stock.

Send list of your wants for prices.

SHENANDOAH NURSERIES

A. F. Lake
Pres.

Shenandoah, Iowa

R. S. Lake
Sec.-Treas.

It is understood they plan to make a bid for Portland as the 1939 convention city. This is in accordance with the by-laws of the association that the convention will be held once every nine years in each of the nine regions.

SEATTLE GARDENERS' COURSE.

Gordon Edwards, of the Lily Gardens, Bellevue, Wash., has been made instructor in charge of the new course for gardeners being offered by the Edison Vocational School, Seattle, Wash. This course is designed to take the place of the apprenticeships taken by gardeners in Europe, Mr. Edwards reports, as the immigration laws are keeping trained men out and the old-timers are in business for themselves.

Classes are held in the evening twice each week. Thirty men are registered for the summer term. At present, fundamentals of the business are being taught, with brief reference to many phases of the subject.

In the fall, more specialized classes will be offered, including garden design, commercial floriculture, bulb growing, cost accounting for nurserymen, etc., and a much larger registration is expected.

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COMPETITIVE WHOLESALE PRICES.
SPECIALIZING IN
TAXUS, AZALEAS, RHODODENDRONS
AND ODD ITEMS YOU ARE UNABLE
TO OBTAIN ELSEWHERE.

Ask for Our Price List

A CHARTER of incorporation was issued recently to the East Coast Nurseries, Pompano, Fla., with 100 shares of stock of \$50 par value. H. R. Kinsey, J. I. Kinsey and C. H. Crum are listed as directors.

A NURSERY of seven acres has been started by the Snoqualmie Falls Lumber Co., Snoqualmie, Wash. Most of the stock will be Douglas fir to use for replacement on the firm's own property, but experiments in raising cascara and nut trees will also be made.

Meet at Shenandoah

*Summer Gathering of Iowa Nurserymen's Association
Draws Many Visitors to Famous Growing Center*

To see the vast quantities of nursery stock being grown at Shenandoah, fully 150 persons gathered there for the summer meeting of the Iowa Nurserymen's Association, June 30. Visitors were recorded from nine states.

So many came early for the event that seventy-five persons sat down for a steak dinner at Bradley's, June 29, as hosts of the Shenandoah firms. The lathstring was out, and the hosts were generous in their hospitality.

At 10 a. m. June 30, a caravan of automobiles made a tour of most of the growing fields. While a steady gait was maintained, without stops en route, it required two hours and twenty-five miles of driving to see only about two-thirds of the 2,500 acres of trees, shrubs and perennials which form the chief means of livelihood of most of the population of this town of 6,000. Clouds and a good breeze mitigated the heat of 95 degrees, and the rain fortunately held off. The tractors had put all the fields in perfect condition, and the results of the excellent growing season were obvious.

Even those acquainted with the extensive operations of the two big wholesale enterprises there commented on the vast quantities of stock produced. From the offices and storage buildings on the edge of town stretch 1,500 acres in the tracts of the Mount Arbor Nurseries and about 800 acres of Lake's Shenandoah Nurseries. Interspersed are about 250 acres of orchards and testing fields of the Henry Field Seed Co., approximately 100 acres belonging to the Welch Nurseries, a retail enterprise operated by J. C. Welch, brother of the head of Mount Arbor Nurseries, and the gardens of the Earl E. May Seed Co. Even the acreage under overhead irrigation would form sizable enterprises in themselves—110 acres of Mount Arbor and forty acres of Lake's.

Those visitors who followed E. S. Welch through the two acres of trees and shrubs that surround his home found many interesting things in this collection. When one realized that all but two of the trees had been planted by Mr. Welch in his twenty-four years' occupancy, the fertility of the soil was apparent. For those who were interested in the clipped dense hedge, like small-leaved privet, it may be identified as *Forestiera neo-mexicana*, the plants of which were given to Mr. Welch by D. M. Andrews, the famous collector of Boulder, Colo., some years ago.

After the 2-hour tour, luncheon was served at the hotel to more than 150 persons. Entertaining musical numbers were furnished by the two radio stations at Shenandoah, KMA and KFNF. Upon opening the short meeting, Clifton C. Smith, president of the Iowa Nurserymen's Association, asked Earl May and Frank Field to take a bow for the entertainment from their respective stations.

A telegram was read from Roy D. Underwood, at Denver, Colo., extending the greetings and good wishes of the Minnesota State Nurserymen's Association to the Iowa group.

Exceedingly brief were the few speeches from the following: T. J. Maney, of Iowa State College, Ames; William Younkin, Nebraska state highway engineer; J. M. Hall, landscape architect for the Iowa state highway commission; L. M. Gates, Nebraska state entomologist; C. J. Drake, Iowa state entomologist, and F. R. Kilner, editor of the *American Nurseryman*.

The guests at the luncheon were greeted on arrival by E. S. Welch, head of Mount Arbor Nurseries, and by A. F. Lake, head of the Shenandoah Nurseries. Harold S. Welch and David S. Lake were the leaders of the caravan of inspection and otherwise helped visitors enjoy their stay, as indeed did most of the staff of their respective institutions.

At the conclusion of the luncheon, a short meeting was held of the Iowa chapter of the American Association of Nurserymen, and as delegates to the board of governors the following were elected: For two years, Harold S. Welch and A. J. Bruce, Des Moines; for one year, C. C. Smith, Charles City, and A. F. Lake.

A GREENHOUSE for propagating work has been erected at the recently established experimental grounds of the House of Gurney nursery, Yankton, S. D. The greenhouse, 28x100 feet, will be used mainly for propagating the trees, shrubs, flowers and vegetables grown on the 20-acre experimental station grounds, which are under the direction of M. B. Lien, formerly connected with the North Dakota Agriculture College, Fargo.

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Large assortment of fine imported and domestic varieties of fruit trees. Complete line of quality stock. Ask for illustrated folder and wholesale price list.

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SOUTHWESTERN NOTES.

Ralph Lake, of the Shenandoah Nurseries, Shenandoah, Ia., left with Mrs. Lake the latter part of June for a trip through the south, on which they will visit nurseries in Kansas, Oklahoma, Texas, Tennessee, Alabama and Missouri.

Howard Wherry, nurseryman connected with the House of Gurney, Yankton, S. D., recently went on an inspection trip to nurseries in Oklahoma, Missouri, Kansas and Iowa. Mr. Wherry reports that his firm enjoyed a splendid business in the spring. In addition to its regular catalogue the firm issued a second in color late in the season, which proved a successful business-getter. The House of Gurney is an extensive grower of forest tree seedlings, particularly Chinese elm.

Paul Wilkinson and Mrs. Wilkinson, of the Henry Field Seed & Nursery Co., Shenandoah, Ia., left July 2 to visit nurseries and inspect contract stock in Kansas, Oklahoma, Texas, Tennessee and Missouri. Mr. Wilkinson reports that sales during the spring season were so good that they exhausted the stock the company had produced and bought under contract, requiring it to go on the market late in the season. He anticipates a good business in the coming season.

Ramsey's Austin Nurseries, Austin, Tex., are contemplating a program of expansion which will involve construction of a new office and storage house on an important highway. Mr. Ramsey reports that Austin has increased fifty per cent in population in the past ten years, has doubled in twenty and knows nothing of the present business recession save what it reads in the papers.

W. G. McKay and Karl Junginger, of

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80,000

2-year APPLE

400,000

1-year PEACH

100,000

1-year APPLE

A GOOD ASSORTMENT OF

1-Year SWEET and SOUR
CHERRY and PEAR

LARGE QUANTITIES OF
ASPARAGUS PLANTS, 1 and
2-Year

GRAPEVINES, 1 and 2-Year

**STRAWBERRY
PLANTS**

**RASPBERRY—BLACKBERRY
and RHUBARB PLANTS**

Exact buyers know Bountiful Ridge grown stock gives results. Let us quote on your needs this year.

**BOUNTIFUL RIDGE
NURSERIES**

Princess Anne, Md.

Mazzard and Peach Pits

The Blue Ridge and Shenandoah Valley Area of Virginia is recognized as being the best known source of supply of the Mazzard, and for the past ten years we have been the largest collectors in this country. This season we expect to collect our usual supply for July and August delivery.

We also collect the Small Native Peach Pits so extensively used.

Write for quotations on both Mazzard and Peach Pits, stating quantity required.

WAYNESBORO NURSERIES, Inc.
Waynesboro, Va.

Our Specialty LINING-OUT STOCK

HESS' NURSERIES
Mountain View, New Jersey

Red Barberry Seedlings

Grade	100	1000	5000
1 to 3 ins.....	\$1.50	\$12.50	\$50.00
3 to 6 ins.....	2.25	18.00	75.00
6 to 9 ins.....	3.00	23.50	100.00
T 9 to 12 ins.	8.50	75.00

Prices subject to change without notice.

Fairview Evergreen Nurseries
Fairview, Erie Co., Pa.

PRIVET and BERBERIS

Splendid Stock

Write for Special Quotations

LESTER C. LOVETT
Milford Delaware

PRINCETON NURSERIES

of PRINCETON, N. J.

SUPERIOR
Hardy Ornamentals

QUALITY NURSERIES

Allenwood, Pa.
Largest Nursery in Central Pennsylvania
Special Prices
on
Hemlock—Yew—Arbor-vite

the McKay Nursery Co., Madison, Wis., returned July 2 from a trip to the southwest. In addition to attending the field day at Shenandoah, Ia., June 30, they visited nurseries in Missouri, Kansas and Nebraska.

Morris Marshall, of Marshall's Nurseries, Arlington, Neb., is spending the summer selling in Wyoming. Mr. Marshall's family intended to spend the summer with him in a trailer, but a highway accident which tore out the side of the trailer made it necessary for the family to go home while Mr. Marshall continued his trip alone.

Vernor Masters severed his connection with the Sarber Nursery & Seed Co., Topeka, Kan., June 1. Mr. Masters is devoting his time at present to the sale of buffalo grass sod, remaining in Topeka.

The Roberts Nurseries, Englewood, Colo., have purchased an additional ten acres north of Littleton for the production of nursery stock.

J. E. Conard, Stigler, Okla., visited for several days with his sisters at Des Moines, Ia., and Ottawa, Kan. Mr. Conard, with his son Leo, operates extensive nurseries, producing large quantities of fruit trees and evergreens.

LAKE COUNTY MEETING.

Lawrence P. Brick, of the Brick Nurseries, Painesville, O., was elected president of the Lake County Nurserymen's Association at the annual meeting held June 30.

Paul J. Schumaker, the retiring president, turned over his chair to the new president, who pledged his activities to increasing the membership of the association and making the organization as useful as possible.

One of the interesting comments in the open discussion that followed the installation of the new president was that of Barrett Cole, who had just returned from a business trip to Chicago and New York. He stated that, although business has been slow, there is a generally optimistic outlook for the coming season.

Other officers elected at the meeting were: Gerard Klyn, Klyn Nurseries, Mentor, O., vice-president; Charles Jones, Call's Nurseries, Perry, O., secretary; Charles Kallay, Kallay Bros. Nursery, Painesville, O., treasurer, and R. P. Cook, Cook Nurseries, Geneva, O., executive committee man.

CINCINNATI WOMEN'S PICNIC.

The Women's Auxiliary of the Allied Florists' and Nurserymen's Association of Greater Cincinnati held its annual picnic June 28 in Natorp's woods, located on Amity road. About thirty members attended to enjoy an afternoon of games which followed the delicious picnic lunch which was served by a committee headed by Mrs. Alex Ostendarp, Sr. The picnickers were happy to see Mrs. William Natorp, hostess for the day, getting around so well; some time ago Mrs. Natorp suffered a broken leg while working in her garden.

FRANK M. RICHARD, JR., Fort Collins, Colo., has recently purchased a half acre of ground with a house on the main street of Fort Collins and will take possession August 1. He is now busy building frames and remodeling a 16x90 building into office, salesroom and packing shed. He intends to start landscaping and to build a roadside stand in autumn.

VISIT OUR NURSERY

You will be interested in our excellent blocks of Named Hybrid Rhododendrons, Azaleas, Taxus and other unusual items.

A cordial welcome awaits you.

BOBBINK & ATKINS
Nurserymen since 1898
Rutherford, New Jersey

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Wholesale Nurseries

NEWARK
NEW YORK STATE

TAXUS

Cuspidata Capitata, 3 to 9 ft.

Heavy specimen plants

Also lining-out. Ask for list.

BULK'S NURSERIES

Babylon, L. I., N. Y.

MOERHEIM'S SPRUCE

Heavy Specimens, 6 to 10 ft.

NORWAY SPRUCE

Up to 14 ft. 6 to 8-ft. diameter.

MAGNOLIAS, 6 to 10 ft.

Ashi-Beni Jap. Maple, Hall's
Honeysuckle, Bittersweet, Sumacs

FREMONT NURSERY Fremont, O.

TAXUS

Cuspidata, 15-in. to 6-ft. spread

Pachysandra Terminalis

Potted, 2-yr. field-grown, also rooted cuttings.

Write for quotations.

THE W. A. NATORP CO.
Cincinnati, O.

Coming Events

CONVENTION CALENDAR.

July 19 to 21, American Association of Nurserymen, annual convention, Book-Cadillac hotel, Detroit, Mich.

July 26, New Jersey Association of Nurserymen, summer convention, New Jersey experiment station, New Brunswick.

July 27, Indiana Nurserymen's Association, meeting, Indianapolis.

July 29, Massachusetts nurserymen's midsummer meeting, French hall, Massachusetts State College, Amherst.

July 31 to August 2, Virginia Nurserymen's Association, annual meeting, Virginia Polytechnic Institute, Blacksburg.

August 3 and 4, Pennsylvania Nurserymen's Association, summer meeting, Nittany Lion Inn, State College.

August 10 and 11, Southern Nurserymen's Association, annual meeting, Atlanta Biltmore hotel, Atlanta, Ga.

August 10 and 11, Michigan Association of Nurserymen, Hotel Olds, Lansing.

August 30 to September 1, annual National Shade Tree Conference, Coronado hotel, St. Louis, Mo.

September 7 and 8, Texas Association of Nurserymen, annual meeting, Driskill hotel, Austin.

September 28 to 30, California Nurserymen's Association, annual meeting, Hotel Roosevelt, Hollywood.

September 30 to October 2, annual Texas rose festival, Tyler.

NEW JERSEY FIELD DAY.

The program for the nurserymen's field day, July 26, at the New Jersey experiment station, New Brunswick, has been completed.

Registration will be at 10 a. m., followed by an address of welcome by Dr. Marin, director of research. William Allen, state secretary of agriculture, will give a short talk, after which an informal clinic will be held on plant diseases and insects. All nurserymen are requested to bring their problems, along with any specimens for the clinic. A round-table discussion will be held, with members of the experiment station staff present to give recommendations.

A reel of motion pictures will be shown to help explain some of the actions of fungi.

During the lunch hour, and immediately afterward, demonstrations of spray equipment will be held, and visits to shrub gardens and other points of interest will be made.

The afternoon program will start with a short meeting of the New Jersey Association of Nurserymen, which will be followed by an address by Harold G. Hoffman, former governor of New Jersey and present director of unemployment compensation.

A charge of \$2.50 will be made for the entire day, which includes registration fee, buffet luncheon and dinner.

VIRGINIA ANNUAL MEETING.

The Virginia Nurserymen's Association will hold its annual meeting July 31 to August 2, at the Virginia Polytechnic Institute, Blacksburg, Va. The program will have the subject of merchandising as its general theme.

The meeting will be held in one of the halls of the new agricultural engineer-

ing building, and it is hoped that every nurseryman will bring at least five specimen plants for the exhibit that will be arranged around the sides of the hall. The program has been arranged as follows:

SUNDAY, JULY 31.

Registration at new stone dormitory during afternoon.

8:15 P. M. Supper at college dining hall.

7:30 P. M. Get-together evening.

MONDAY, AUGUST 1.

8:30 A. M. Meeting called to order by President Burnet.

Roll call by secretary.

8:55 A. M. Welcome, by Dean H. L. Price, department of horticulture.

9:00 A. M. "Better Merchandising," by R. G. Burnet, president, Virginia Nurserymen's Association.

9:15 A. M. "Growing Plants for Special Landscape Effects," by Albert Glass, Altavista.

9:55 A. M. "Know Your Evergreens," by Prof. A. B. Massey, department of biology.

10:35 A. M. "Merchandising from the Customer's Viewpoint," by W. P. Hazelgrove, attorney, Roanoke.

11:35 A. M. Appointment of committees for convention. Announcements.

12:15 P. M. Dinner at college dining hall.

2:00 P. M. "Maintaining Soil Fertility as an Aid to Merchandising," by Dr. T. B. Hutcheson, department of agronomy.

2:45 P. M. Open forum discussion of above subject.

3:15 P. M. "A Spray Calendar for Ornamentals as an Aid to Better Merchandising," by Prof. A. H. Teske, department of horticulture.

4:30 P. M. Inspection of experimental rose plots, college greenhouses, nature trail and other features of interest.

8:15 P. M. Supper.

8:00 P. M. "A Sound Merchandising Policy," by Philip Gott, United States Chamber of Commerce.

9:00 P. M. Meeting of committees.

TUESDAY, AUGUST 2.

8:00 A. M. Report on Virginia chapter of A. A. N., by Owen G. Wood, Bristol.

8:15 A. M. "Organization and Its Relationship to Merchandising," by Dr. R. P. White, executive secretary, A. A. N.

8:30 A. M. "State Reciprocity and Other Regulatory Matters in Their Relationship to Merchandising," by J. M. Lewis, Cascade.

9:30 A. M. Treasurer's report, by G. T. French, Richmond.

9:45 A. M. Committee reports.

10:00 A. M. Election of officers.

10:15 A. M. Unfinished and new business.

11:00 A. M. Adjournment.

MICHIGAN SUMMER MEETING.

The program for the summer meeting of the Michigan Association of Nurserymen, August 10 and 11, Lansing, will include several interesting addresses.

Prof. B. A. Walpole, chairman of the national committee of the National Exchange Club, will speak on "Why I

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27th Annual Catalogue ready.

HARMEL PEONY COMPANY

Growers of Fine Peonies since 1911
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Believe in American Agriculture." "What I Would Do If I Were a Real Nurseryman" will be the subject of a talk by Walter Millman, personnel director, Wolverine Shoe & Tanning Corp. Eldon H. Burgess, Burgess Seed & Plant Co., Galesburg, will speak on "New and Worth-while Perennials." A speaker yet to be announced will have as a subject, "Sales Promotion."

There will be a report of the American Association of Nurserymen convention in Detroit, and arrangements have been made for an internationally famous humorist and entertainer from Chicago.

INDIANA SUMMER MEETING.

The second summer meeting of the Indiana Nurserymen's Association will be held Wednesday, July 27, at Wiegand's Nursery, 2661 Kessler boulevard, Indianapolis, according to an announcement from Kenneth Randel, secretary.

The gathering will combine business with social affairs. The business meeting is scheduled to begin at 2:30 p. m. and is to be followed by an authoritative guest speaker.

A basket picnic will follow the close of the afternoon meeting.

MASSACHUSETTS MEETING.

The fourth annual nurserymen's meeting in conjunction with the Massachusetts State College farm and home week will be held July 29, at Amherst.

The program will be opened at 10 a. m., with words of welcome from R. A. Van Meter, head of the division of horticulture. "Control of Injurious Insects in the Ornamental Nursery" will be discussed by W. D. Whitecomb, research professor of entomology, and "Need for Pest Control as Indicated by the Findings of the Nursery Inspector," by M. P. Zappe, assistant entomologist at

ORIENTAL POPPIES

Fine field-grown roots, propagated from root divisions. Ready in late July.

Many fine varieties, including:

Joyce—Fine cerise red

Jeanne Mawson—Clear geranium pink

Beauty of Levermore—Fine red

Mrs. Perry—Large pink

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Perry's White

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Lulu Neeley—Oxblood red

Orange King—Large orange

Scarlet Beauty—Large scarlet.

Write for prices and complete list.

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Newest Plant Introductions

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Our Specialty

Hansen Bush Cherry

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And many others

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Lining-out Evergreens
and Shrubs

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Scotch Grove, Iowa

HILL'S EVERGREENS

Complete assortment of lining-out sizes
Also larger grades for landscaping
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EVERGREEN SPECIALISTS

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THE WESTMINSTER NURSERIES WESTMINSTER, MARYLAND

Fruit and Shade Trees, Evergreens, Shrubbery,
all sizes up to 7 ft. California Privet, 3 to 7
ft., in grades, Heather, assorted, 8 to 18-in.
clumps, Evergreen Privet and Barberry, Perennials, etc.

We have a very complete line.
Trade list sent on request.

Wholesale Growers of

Grapes, Currants,
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and Raspberries

Let us quote on your requirements

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the Connecticut agricultural experiment station.

After luncheon at the college cafeteria, the afternoon program will open with a talk on "Diseases of Nursery Plants in the Open," by Malcolm MacKenzie, assistant research professor of botany, and conclude with a talk on "Control of Plant Diseases During the Period of Propagation," by W. L. Doran, research professor of botany.

LOUISIANA SALES TAX.

According to rules issued recently by the Louisiana collector of revenue, in regard to the new one per cent sales tax, all nurserymen or florists doing business in that state must make a segregation of all money received for the selling and planting of plants, shrubs or trees.

The rule states: "Where a nurseryman or florist sells shrubbery, young trees or similar items and as part of the transaction transplants them to the land of the purchaser for a lump sum or a flat rate, the vendor so selling and installing must make a segregation of that portion of the charge which is for installation."

The penalty for failure to comply with the above rule will result in the tax being imposed upon the entire sum instead of for the actual goods sold.

VERHALEN BULB HARVEST.

June is the time of the year at the Verhalen nurseries, Scottsville, Tex., when one-tenth of the nation's Paper White narcissus bulbs are being dug, according to pictures and a story featured in the Marshall News Messenger, June 19.

Carrying on a strictly wholesale business, the Verhalen Nursery Co. sells most of its crop of 8,000,000 bulbs to the American Bulb Co., Chicago, which resells the bulbs throughout the nation. It is a record of the nursery of never having made a retail sale in twenty-five years of business.

This huge bulb crop composes only about one-third of the entire business done by the nursery. The company has eighty acres devoted to the growing of roses, estimated at approximately 750,000 bushes, and the rest of the business is made up of 150 different varieties of plants and shrubs. An annual pay roll of \$50,000 is expended for the force of 150 men.

This nursery has grown from one-half acre in roses, cannas and shrubs to eighty acres in roses and 600 acres in narcissus bulbs, cannas and evergreens under the guidance of Stephen Verhalen and his two sons, Ray and George.

A third generation came into the business recently when Stephen Verhalen, just graduated from St. Edward's Academy, at Austin, Tex., entered the business.

THE Barbour County Landscape Nursery, Belington, W. Va., is a small nursery establishment operated by W. T. McVickers, Jr., a student at West Virginia Wesleyan College, who is working his way through school doing landscape work.

PURCHASE of five new trucks has been necessary to take care of the increase of business of the Barnes Bros. Nursery & Landscape Co., Jackson, Miss. Despite the hot weather, business is continuing along at a good pace, and plantings are being made with temperatures as high as 98 degrees.

FALL 1938

ELM, American, Moline and Vase,
up to 4 ins. All transplants.

MAPLE, Norway, up to 3½ ins.
Transplants, extra select, spaced
7x7 ft.

POPLAR, Lombardy, up to 2 ins.

WILLOWS, Thurlow, up to 3 ins.

BARBERRY, Thunbergii, up to 2
to 3 ft.

SPIRÆA, Vanhouttei, up to 5 to
6 ft.

APPLE, 2-year.

CHERRY, 1-year.

PEACH.

All of above items can be supplied in carload lots.

Send for list on many other items.

C. M. HOBBS & SONS, INC.

Bridgeport, Indiana

Largest Nursery in Indiana. Est. 1875.

SPECIMEN and LINING-OUT STOCK

Evergreens, Shade Trees,

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Erosion-Control Plant Materials.

200 acres of stock in fine condition.

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Located on U.S. 20, 12 miles west of Erie.

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HOGANSVILLE NURSERIES

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SMALL FRUIT PLANTS

Evergreens — Shrubs

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SCARFF'S NURSERIES

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Hardy Fruit Tree Seedlings

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ANDREWS NURSERY CO. Faribault
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Write to
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California News

CLASSIFICATION RELEASE.

Since many members of the Southern California Horticultural Industries have been advised by the Treasury Department that they are delinquent in their reports on employees subject to social security tax provisions, Secretary Lou Johnson has secured from the Los Angeles office a statement of what is necessary to release themselves from this classification, and to close their accounts. All that is necessary is to file a "final" information form as follows:

"The undersigned, having ceased to be an employer within the meaning of title VIII of the social security act, states that the (1) Last day in business (meaning under liability) was....., 1937. (2) Date of last payment of wages (under liability) was..... (3) Address where records are maintained is.....street,city,state. Employer's identification number..... Owner....."

Those who are still paying social security tax on employees who do not come within the accepted meaning of agricultural labor should not file the above return. On the other hand, those who paid on agricultural labor up to and including October, 1937, and are now employing only agricultural labor, should file the above form. Details on borderline cases on agricultural labor should in each instance be taken up with deputy collectors.

LICENSE LAW TEST.

Floral Industries, Inc., Los Angeles, Cal., through Secretary J. S. Whyte and its attorney, C. P. Von Herzen, is preparing to test the validity of the California law, which will, after July 1, make it necessary for retail florists selling plants to hold a nursery license at an annual fee of \$10. Up until that time, Floral Industries, Inc., has an arrangement with the state, whereby it holds a nursery license and retail members of the association have a branch license from the association at a cost of \$2.

Objection to the new provisions is made on the basis that the fee is in reality an inspection fee and that, first of all, there is no inspection of plants or nursery stock made at a retail establishment. Second, Floral Industries, Inc., holds that rooted plants sold at retail by florists come from inspected nurseries.

As to the fee itself, it is claimed to be excessive, considering the share of the florists' business devoted to selling plants. The amount collected will be the same as that assessed against nurserymen engaged solely in the production of plants, and in addition, the retailer must have his regular retail license.

Floral Industries, Inc., further claims that at holiday time, when sales of potted plants are of considerable volume, it would be impossible for the state to inspect the stock at the retail point of sale within the short space of time it is handled, without an army of inspectors. In this case, it is felt that the legitimate florist, with an established place of business, would be the one least likely to need supervision and he would be the one most accessible for inspection, while

the temporary, fly-by-night type of peddler would avoid supervision.

Members of the association are asked to confer with C. P. Von Herzen for advice before taking any action in this matter or giving out any information to anyone regarding their sales of nursery stock.

LEAFLETS WITH WATER BILLS.

Through the cooperation of the municipally owned Los Angeles department of water and power, and the Southern California Horticultural Institute, 450,000 leaflets of garden information will be mailed as inclosures with water bills each month, in the form of a small 4-page publication, titled "Your Garden."

An appropriation of \$30,000 has been given the department for the publication of twelve monthly issues of the bulletin, which will be devoted to material on pest control, fertilizers and timely planting information. All costs of publication will be paid by the department.

Contributions for publication are invited from members of the institute. All material will be subject to final approval of Kenneth Crist, editor of the farm and garden section of the Los Angeles Times, who will be assisted by the following associate editors: Nursery stock, Richard Westcott, Paul J. Howard Horticultural Establishment; potted plants, Tom Edwards, Roy F. Wilcox & Co.; fruit trees, J. A. Armstrong, Armstrong Nurseries; seeds and bulbs, D. J. Daniels, Aggeler & Musser Seed Co.; fertilizers and soil conditioning, Murray C. McNeil, Swift & Co.; insecticides, W. S. Rowland, Peck & Wadsworth; special articles, Opal Scarborough, Maria Wilkes and Peggy Jewel.

WESTERN WORLD'S FAIR TREES.

One of the most elaborate and unusual tree-transplanting jobs is being undertaken at the site of the 1939 Golden Gate International Exposition,

FRESH CROP SEED

Dicentra Eximia—Plumy Bleeding Heart
SPECIAL PRICE:

¼ oz., 50c; oz., \$1.50; ¼ lb., \$5.00

We are also gathering from our own nurseries, and receiving from specialists, fresh seeds of the leading perennials such as:

AQUILEGIAS and DELPHINIUMS

This fresh seed will germinate readily, and our prices are reasonable for the very finest strains.

Write for our complete catalogue and for information on varieties you are interested in.

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San Francisco, Cal. More than 4,000 trees and 40,000 shrubs, ranging from two feet to sixty-five feet tall, are being taken by barge to Treasure island, in San Francisco bay, the site of the western world's fair. The first barge loaded with trees was moved early in May under the direction of Julius L. Girod, chief of the exposition's bureau of horticulture.

The exposition's horticultural program is costing \$1,500,000, it is reported. The salient feature of it is that all planting and transplanting must be done on made land. The exposition site is a square mile of dredged island in the middle of San Francisco bay, providing many unique problems in horticulture. The first shipment included 200 tons of Irish yews, acacias and olives. A later shipment was of ten giant palm trees, each sixty feet high, weighing forty tons. In this case, the trees were rigged upright, like masts.

The trees are being moved to Treasure island from their temporary home in Balboa park, where the exposition maintains an elaborate nursery.

LOS ANGELES NOTES.

Tree rose growers associated with Horticultural Industries, Inc., now have compiled an accurate cost survey for tree roses in classifications No. 1 and 1½, which enables them to comply fully with the grades and standards law in this respect.

Albert Morris, president of the California Association of Nurserymen, has appointed a committee to receive and offer suggestions regarding amendments to the ornamental plant section of the grades and standards act, headed by Harold McFadden, chairman, and including Richard Westcott and L. B.

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you will not be sorry. Reliable and Dependable. Write for prices on 1937 crop. 6000 to 7000 seeds to the bushel (50 lb.)

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Oregon-grown ROSEBUSHES

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New Rose TEXAS CENTENNIAL (Red Hoover)

Plant Patent No. 162

Ask for color illustration
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Also for our general list
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DIXIE ROSE NURSERY
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**HARDY
Rosebushes**
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HOWARD ROSE CO.
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LOCAL MAHALEB SEED

High germination. July delivery.
WASHINGTON NURSERIES
TOPPENISH, WASH.

NORTH DAKOTA SEEDS

Silver Cedar
(Juniperus scopulorum)

Cleaned seed that will meet a 60 per cent minimum cutting test. Price, \$4.00 per lb., prepaid. 10 lbs. or more, \$3.50 per lb.

E. C. MORAN Medora, N. D.
(Summer address Gorham, N. D.)

FRUIT TREE SEEDLINGS

Apple, 3/16-in. Western-Grown Per 1000 \$12.00
French Pear, 3/16-in. 12.00
Myrobalan Plum, 3/16-in. 12.00
These are well graded, sturdy, healthy seedlings, on which we do our own budding and are sure to please. Supply limited.

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HERBS

Pot-grown plants; over a hundred varieties.
Dried Herbs for Flavoring and Fragrance.
Other plants of unusual character and
with the charm of old-time gardens.

Write for Catalogue

Weathered Oak Herb Farm, Inc.
BRADLEY HILLS, BETHESDA, MARYLAND

Merriek. Recommendations should be sent to these men. Mr. McFadden is manager of the Del Amo Nurseries, Compton; Mr. Wescott is with Paul J. Howard's Horticultural Establishment, 250 South LaBrea avenue, Los Angeles, and Mr. Merriek is head of the L. B. Merriek Nurseries, 541 Painter street, Whittier.

The board of directors of Horticultural Industries, Inc., has eliminated the 3-way sponsorship requirement for privileges of the organization. In its place has been set up a committee of investigation to pass on applications, as a result of abuses of privileges extended under less stringent regulations. Cards for contracting gardeners may be obtained on the sponsorship of one member. To qualify, landscape architects must be professionally recognized as such, members of the A. S. L. A. and graduates of an accredited school of landscape architecture. Landscape contractors must be licentiates and in full compliance with the statutory requirements of the contractor's license law. (Chapter 791, Statutes of 1929, as amended.) Synopsis of the law and applications are on file at the office of Horticultural Industries, Inc.

Idso Perennial Gardens, Van Nuys, cater to San Fernando valley gardeners, where extremes of hotter summer and colder winter weather are the rule; so all Idso stock is tested in a trial garden 50x100 feet, in a location where extreme temperatures prevail.

WESTERN TREE CONFERENCE.

The fifth western shade tree conference held at Sacramento, Cal., April 28 to 29, has been reported as one of the most successful held. The meeting was attended by approximately 150 delegates.

Two committees were named by the conference to study the various possibilities of controlling the commercial practice of arboriculture in California.

Officers elected for the sixth conference were: President, Edgar M. Sanborn, park forester, Oakland, Cal.; vice-president, Ted Holderness, city forester, Pasadena, Cal., and executive secretary, Edward H. Scanlon.

TO FIGHT GRASSHOPPERS.

The Minnesota state entomologist, A. C. Ruggles, reports that some nurseries suffered a great deal of damage from grasshoppers last year and that a large number of eggs were laid and came through the winter. County agents have a good supply of free poison bait and nurserymen are urged to obtain this material to control the hoppers as soon as conditions demand. In order to obtain the free bait, organized community efforts must be made, as the federal government will not issue the material to individuals.

In order that the grasshopper menace may be more thoroughly overcome the federal authorities have set up a central office at Minneapolis; this will serve twenty-three states. A total of 170,000 tons of grasshopper bait has been put at the disposal of the officers in charge.

Chief Deputy Aamodt and the nursery inspectors are working with the central control office in the work.

A REZONING petition is under consideration in Palo Alto, Cal., in order that William E. Schmidt may establish a nursery on his property in what is now a residential district.

Portland Wholesale Nursery Co.

306 S. E. 12th Avenue
Portland, Oregon

To the Trade Only

A complete line of
Nursery Stock and
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Catalogue sent on request.

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Send us your list of wants

Fruit Tree Seedlings
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Grown right and packed right

Combination carloads to eastern distributing
points save you on freight.

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"Pioneer Nursery of the Northwest"

Fruit, Shade, Flowering and Ornamental Trees, Fruit Tree and Chinese Elm Seedlings.

Car lot advantages to all points east.
Send for our Trade List.

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Wholesale Growers

Fruit, Shade, Flowering Ornamental Trees, Fruit-tree Seedlings, Roses, Etc.

Very complete line of quality stock
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1436 N. E. Second Ave. PORTLAND, ORE.

Largest Fruit Tree Seedling Growers
In America.

We accept growing contracts for 3 to 5 years.
Quality stock. References on request.

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Dormant Buds

Multiflora Japonica, rooted cuttings.

Quince stocks and seedlings.

ENSCHEDER NURSERY
Hillsboro, Ore.



EVERGREENS

For Seventy-four years
growers of Quality Evergreens
Lining-out Stock a Specialty

Write for Trade List

EVERGREEN NURSERY CO.

Established 1864 STURGEON BAY, WIS.

New Books and Bulletins

"OUR SHADE TREES."

"Our Shade Trees," by Ephraim Porter Felt, is intended as a service book for suburban tree owners and deals primarily with the problems of the shade tree. The author has spent many years in the field of shade tree conservation and has used the knowledge gained in this work as the basis for the book. The publisher is Orange Judd Publishing Co.

As an introduction to his subject he devotes the first chapter to various notable trees and their connection with history, also a brief discussion of laws and legislation pertaining to trees.

Recognizing the seriousness of tree treatment, pruning, etc., by the average homeowner, the author impresses the necessity of employing skilled workers for these jobs. In the chapter, "The Language of Shade Trees," are described the various signs of a tree's ills and how the individual can interpret them.

Of particular interest is the chapter, "Planting Shade Trees," which includes a table showing the ratings by municipal authorities on the relative value of shade trees. The final chapter is a list of twenty of the more useful books on trees and shrubs.

This 194-page book has a 3-page index. Thirty-one half-tones and one line drawing illustrate the 165 pages of text. The book is cloth-bound and sells for \$2.

"SOILLESS GROWTH OF PLANTS."

Widely advertised as the first book on the subject, "Soilless Growth of Plants" serves rather as an introduction to the subject for those amateur gardeners not acquainted with it, rather than a reference work for commercial growers seeking further information than has appeared in horticultural periodicals and in experiment station bulletins. The authors, Carleton Ellis and Miller W. Swaney, are known for their chemical research, and the book is issued by the Reinhold Publishing Corp., New York, publishers of other volumes by the authors on chemical subjects. The price is \$2.75.

Of the 155 pages in the book, approximately forty are taken up with illustrations, leaving text, in large type, of about 100 pages. This comprises eight chapters, the first of which presents in a popular style a few of the elementary principles of plant growth, though not entirely accurate as to some phases of plant physiology. The second and third chapters deal with the growing of plants with nutrient solutions in sand and gravel and in water. The authors, being chemists, treat the subject rather from that angle than adequately with reference to the actual growing of plants.

Chapter 4, perhaps the best in the book, shows some evidence of experimentation and experience on the part of the authors. This chapter deals with the growing of plants by these methods by amateurs in the home.

Chapter 5, on "Commercial Aspects," contains eighteen pages, half illustrations, briefly reviewing what has been

done. Unfamiliarity with commercial greenhouse production has led to discussion of some unimportant aspects and to statements which might have been qualified with experience.

Chapter 6 deals with a popularized presentation of the subject of plant growth substances and hormones. Chapter 7 is a "resume of factors which adversely affect vegetative growth," under the title, "Common Detriments." Chapter 8 contains a list of nutrient solution formulas obtained from various available sources.

The book is written from the standpoint of the amateur gardener and will probably be of value to persons of that class who are interested in this subject. On that account, the book may be recommended to the retail trade by persons who are confronted with requests for information on this subject. As an explanation of a topic widely mentioned in the public press, the book should prove valuable. Because of the brevity of the book and the unfamiliarity of the authors with actual greenhouse conditions, commercial growers will have to rely still on the experiment stations' bulletins presenting this subject in detail.

FOREST RETREAT'S GARDENS.

"Forest Retreat and Its Garden," by Otto A. Rothert, is a well illustrated 40-page booklet describing the author's garden at Forest Retreat. It is a reprint of an original sketch that appeared in the Louisville Courier-Journal, June 26, 1938.

Forest Retreat is in the heart of a

tract of small-timbered land of more than 2,000 acres in the backwoods of Muhlenberg county, Kentucky, about 150 miles from Louisville. Among its several gardens is one of variegated-leaved plants, of which the author assembled a large collection.

BULLETINS RECEIVED.

"Baiting Grasshoppers in Iowa," by C. J. Drake, state entomologist, and H. D. Tate, extension entomologist, has been issued by the Iowa department of agriculture as bulletin 87, under date of June, 1938. This 24-page bulletin covers the species of grasshoppers involved, kinds of baits to use, mixing of the baits, method of spreading and the time to spread the bait.

"The Japanese Beetle in Connecticut," by W. E. Britton, state entomologist, and J. P. Johnson, in charge of Japanese beetle control, has been issued as bulletin 411 under date of June, 1938, by the Connecticut agricultural experiment station, New Haven. This 36-page bulletin brings together in one publication pertinent facts regarding the Japanese beetle, its life history, method of spread, damage and food, natural enemies, insect parasites, artificial control and quarantine regulations.

"The Gypsy and Brown-tail Moths and Their Control," issued as circular 464 by the United States Department of Agriculture under date of March, 1938, is written by A. P. Burgess, principal entomologist, division of gypsy moth control, and W. L. Baker, assistant entomologist, division of forest insect investigations. It describes the origination and infestation of the gypsy and brown-tail moths, and measures to combat them. This 40-page circular lists the present areas of infestation and the departments in

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charge of control in the various states. The circular also contains a list of trees favored and unfavored as food by the gypsy moth larvæ.

The report of the director of the Connecticut experiment station for the year ending October 31, 1937, bulletin 409, contains a few articles of interest to nurserymen. This 60-page pamphlet presents a review of the year's work at the station and a tentative program for the following year. Besides an article on dormant sprays for the control of pine-leaf blister, reports of interest are those on the Japanese beetle, pests of shade trees and the control of the Dutch elm disease.

"Ornamental Trees," by Harold Mowry, bulletin 95 of the Florida agricultural experiment station, Gainesville, is a beautifully illustrated 132-page booklet containing a list of the ornamental trees suitable for planting in Florida. Each tree listed is accompanied by a brief description and illustration. The bulletin, dated April, 1938, also contains a check list of trees native to Florida.

"Strawberry Diseases and Insects," by A. N. Brooks and J. R. Watson, bulletin 98 of the Florida agricultural experiment station, Gainesville, deals with diseases and insects affecting strawberries in Florida. This 32-page bulletin, issued under date of May, 1938, is in part a revision of the station's bulletin 63, containing some new material.

"Citrus Propagation," by A. F. Camp, horticulturist in charge, citrus experiment station, issued as bulletin 96 by the Florida agricultural extension service, Gainesville, under date of May, 1938, is a discussion of a number of procedures in the propagation of citrus fruits by budding, including some notes on the choice of root stocks and their comparative values in the fifty-six pages.

"Strawberry Production," bulletin 97, issued May, 1938, by the Florida agricultural extension service, Gainesville, is a 20-page bulletin by A. N. Brooks, plant pathologist, and Harold Mowry, assistant director administration, Florida agricultural experiment station. This bulletin deals with all phases of strawberry production from selection of varieties through planting, fertilizing, cultivation, irrigation, picking and packing, selling methods and precooling of carlots.

"Manganese Sulphate as a Corrective for a Chlorosis of Certain Ornamental Plants," written by R. D. Dickey and Walter Reuther, of the Florida experiment station, Gainesville, is issued under date of April, 1938. This 20-page bulletin deals with the use of manganese sulphate to correct chlorosis caused by the deficiency of certain elements in Florida soils.

EXTENDS PEST CONTROL WORK.

A large addition is being made to the Canadian parasite laboratory at Belleville, Ont. As soon as completed, this laboratory, under the supervision of A. B. Baird, entomologist, will launch several new endeavors. Among them will be the biological control of the spruce sawfly, the grasshopper and the wheat-stem sawfly. Eight million cocoons of parasites which attack the spruce sawfly have been received from Europe, and 50,000 insect cocoons from the Imperial Institute of Entomology in England, to aid the fight against the wheat-stem sawfly.

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The entomological laboratory is also studying the control of numerous other pests. Among them are the Oriental fruit moth, common in southwestern Ontario; the codling moth of British Columbia and Ontario, the tomato worm in Ontario, the mealy bug, the pine-shoot moth in Ontario, the larch sawfly, the potato beetle and the greenhouse white fly.

G. C. K.

CATALOGUES RECEIVED.

[In writing for a copy of any of the catalogues reviewed below, please mention that you saw it described in *The American Nurseryman*.]

Walker's Nursery, Fordville, Ky.—A folder offers fruit trees—apple, pear and peach—and grapevines. Also listed are strawberries and rhubarb.

Pfeiffer Nursery, Winona, Minn.—Illustrated folder presenting wholesale prices of peonies and irises, the peonies listed alphabetically as to color. Some hardy perennials are offered, also gladioli and lilies.

Harmel Peony Co., Berlin, Md.—Twenty-seventh annual catalogue dated fall, 1938, contains twenty-eight pages and lists double, single and Japanese-type peonies.

Agnes A. Wheeler, Portland, Ore.—Delphiniums, violas and Japanese irises are offered in an attractive, illustrated booklet printed in blue. Among the violas are several Wheeler Croft originations, and a new strain of white delphinium, Snowflake, is pictured on the front cover.

A. B. Kathmier, Macedon, N. Y.—Suggesting a newspaper in its style, "The Iris News" is a folder giving prices of perennials, chrysanthemums, peonies and Oriental poppies, besides irises. Of the last-named, a unique offering is the Alphabet collection, consisting of twenty-six varieties, the name of each starting with a different letter.

The life of P. J. Bellinghausen, Ponca City, Okla., who has been in the nursery business practically all of it, was told in a Tulsa newspaper recently. Mr. Bellinghausen came to this country from Germany. His son, W. P. Bellinghausen, and his grandson, Francis, are both active in the firm. Mr. Bellinghausen is also superintendent of parks in Ponca City.

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That's what several subscribers have said about the 6-page table on Seed Stratification Practices in *The American Nurseryman*.

So many requests for extra copies have come that the four articles by L. C. Chadwick on

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THE overflowing of creeks and rivers at Lake City, Minn., that followed a storm July 9 swept waters through the plantings of the Jewell Nursery Co., but whether any considerable damage resulted is not yet known.

TALE OF WASHINGTON TRIP.

The North Jersey Metropolitan Nurserymen's Association finally decided to make the trip to Washington, D. C., by automobile to view the various activities of the United States Department of Agriculture. At 5 a. m. June 27, four cars of nurserymen left Caldwell, N. J., and at noon arrived at the Ambassador hotel, in Washington, where they were met by Richard P. White, executive secretary of the A. A. N.

After we had checked in and had lunch at the hotel, Dr. White started us out on the program he had outlined for our visit.

We visited the Bell experimental station, where we met Mr. Bradford, who explained the setup of that station and turned us over to Mr. Hope, who conducted the tour over the grounds. We also met Dr. Stoutmeyer, and he explained the work he is doing in rooting pecan and locust hardwood cuttings with growth-stimulating chemicals. Dr. Stoutmeyer impressed the members with his hormone powder, which seemed to be the best yet. Next we met Mr. Close, who conducted a tour through the greenhouses, where we saw plants from all parts of the world.

We arrived back at the hotel at 7 p. m., tired but happy, for already the trip was proving to be a success.

The next day we started out at 8 a. m. for the Beltsville experimental station. When we arrived there we met a number of members from the Maryland Association of Nurserymen, who joined our party and made the day most enjoyable. Dr. F. E. Gardner conducted the tour over 425 acres of experimental work, and we were greatly impressed with the work being carried on at the station. Dr. Freeman Weiss gave us a history of azalea flower spot, also canker on boxwood. Dr. Ziegler then explained the work he was doing on knots on grafts and crown gall.

Dr. Boswik showed us the work he was studying, the effect and influence the light of day has on plants. The various growths of soybeans were truly remarkable.

After having lunch at a near-by restaurant, we started out again with Dr. Gardner and G. E. Yerkes. Mr. Yerkes showed and explained to us the results he had obtained in the rooting of various cuttings in hormone solution. Then we toured the farm to make a comparison of the field work. We saw a block of evergreens that were fed with chemical fertilizers, also the work carried on in fruit propagation for sturdy stock. Dr. Van Fleet's rose block was, as Mr. Yerkes explained, the experimental work carried on in the storage of roses.

We saw experiments to determine varieties of peaches resistant to wet feet and the spraying of holly with hormones to set berries without pollination. After this was over, a group of tired nurserymen tramped into the office of Dr. White to lay out plans for the next day.

June 29, the third day of the tour, we visited the botanical gardens in the city, and J. Boardse, who was well known to us, showed us through the gardens. From the gardens we went to the bureau of engraving and printing and saw too much money.

From the bureau of engraving and printing we went to the top of the Washington monument and enjoyed the view of the Lincoln memorial, the Potomac river and the Capitol building. From there we visited the White House and the Smithsonian Institute. This finished our tour and we went back to our hotel, had lunch and checked out.

On our way home we stopped to visit the nursery of Henry Hohman, at Kingsville, Md., and then continued on home.

We arrived home on Thursday morning at 4 a. m., tired but happier and a bit wiser, for our trip was a huge success, not only educationally, but in that we met and made a lot of new friends.

William Hallicy, Sec'y.

USES SOIL STERILIZER.

Corliss Bros., Inc., landscape, nursery and florists' firm, of Gloucester, Mass., recently installed one of the latest machines introduced for soil sterilization. It is electrically operated and capable of handling one cubic yard of soil every six hours.

Excellent results have been experienced by the firm in using the machine. The treated soil is found to be free of insects and weed and fungous life and it can be used over and over by re-sterilization. Fresh seeds planted in sterilized soil showed nearly 100 per cent germination. Bedding plants grown in the treated soil this spring were two weeks in advance of those grown in other years in ordinary soil. The growth also seemed to be stronger, with root systems more fibrous and heavier.

An experiment is being made this season to sell the sterilized soil under the name of STER-L-ERTH, bagged in weights of ten, twenty-five, fifty and 100 pounds.

J. VERKADE, owner of Verkade's Nurseries, Preakness, N. J., sailed June 25 for Europe, where he is vacationing with his family. He plans to arrive back in New York September 1, "ready for work."

PLEASANT and profitable business the past season is reported by Paul M. Bruce, of the Bruce Nurseries, Alanreed, Tex., designated the oldest nursery in the panhandle. Stock planted at Alanreed and also at the branch nursery in Enath county is doing well.

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OBITUARY.

Thomas J. Gwin.

Thomas J. Gwin, of the Fruitland Nurseries, Augusta, Ga., died June 26 after a heart attack. He was 56 years old and had been associated as a partner with James G. Bailie in the Fruitland Nurseries since 1919, when the firm was established, being an active member of the organization until the time of his death. He is survived by his widow, three sons and a brother.

Charles A. Chinberg.

Charles A. Chinberg, 66, Little Falls, Minn., florist and nurseryman, died July 1 in a Minneapolis hospital. Born in Sweden, Mr. Chinberg went to Minnesota fifty-seven years ago. He was a member of the Masons at Hankinson, N. D., where he was formerly in the nursery business, and of the Scottish Rite and Shrine at Fargo, N. D. Surviving are his widow; two sons, Leo, of Little Falls, and Linnie K., of Staples, and three sisters.

Charles A. Crate.

Charles A. Crate, nurseryman of Hayward, Cal., was fatally injured June 14, when he failed to notice a warning signal and his automobile was struck by a freight train. Mr. Crate, who was 66 years old, had lived in Hayward for many years. He was the worthy patron of the Hayward chapter of the Order of the Eastern Star. He also was a member of Durant lodge, F. & A. M. of Berkeley, which organization had charge of the funeral services, which were held June 18.

ROSE REGISTRATIONS.

The American Rose Society's registration committee has approved applications for registration of the following roses. Notice of these registrations has been sent to rose organizations in foreign countries and trade papers. If no objections are raised before August 22, 1938, the registration of these names will become permanent as of that date.

Climbing Victoria Harrington. Climbing hybrid tea. Discovered by Mordigan Evergreen Nurseries, San Fernando, Cal., and said to be a sport of Victoria Harrington. Exactly like its parent, except that it makes vigorous climbing growth, and blooms in California from May to November.

McGredy's Sunset. Hybrid tea. Said to be a cross of unnamed seedlings originated by Samuel McGredy & Son, Portadown, Ireland, and to be introduced in the United States by Jackson & Perkins Co., Newark, N. Y. Plant is described as vigorous, hardy, bearing 30-petaled flowers, clear buttercup yellow outside and chrome yellow shading into bright scarlet inside. It has a fruity fragrance and is a free bloomer.

Revelation. Hybrid tea. Said to be a sport of Briarcliff discovered by the Evans City Cut Flower Co., Evans City, Pa. The flower is said to be larger than Briarcliff with forty to forty-five petals, dark pink in color; the claim is for more vigorous growth, darker green foliage more resistant to summer temperatures and better quality blooms than its parent.

Sunny Days. Hybrid tea. A seedling of unknown parentage, originated by H. A. Verschuren, Haps, Holland, and to be introduced in the United States by Henry A. Dreer, Inc., Riverton, N. J. The plant is described as vigorous and upright, with 4½-inch flowers, having eighty petals of chrome yellow fading to almost white at the edges of the outside petals; heavily veined. Fragrance slight. Said to be a free bloomer with good-lasting flowers.

Sequoia. Hybrid tea. Said to be a seedling of unknown parentage, originated by J. Verschuren-Pechtold, Haps, Holland. Plant is described as vigorous and upright; the flower globular; four and one-half inches in diameter, with forty-five petals. Color is ripe pumpkin flesh suffused with apricot, shading lighter at edge of outside petals. Fragrance slight. Said to be a free bloomer with good-lasting flowers.

R. Marion Hatton, Sec'y.

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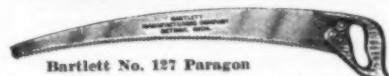
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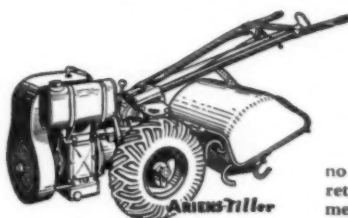
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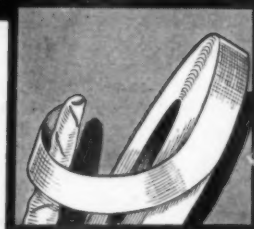
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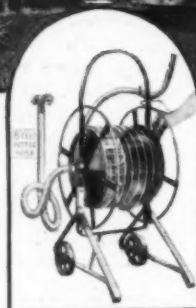
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